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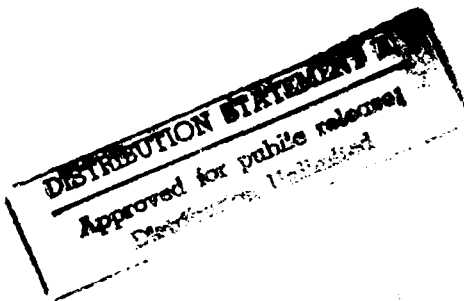


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Reenlisting in the Marine Corps: The Impact of Bonuses, Grade, and Dependency Status

Aline O. Quester
Adebayo M. Adedeji



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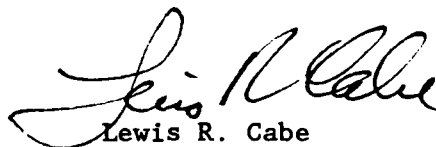
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Reenlisting in the Marine Corps: The Impact of Bonuses, Grade, and Dependency Status

Aline O. Quester
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Operations and Support Division



CENTER FOR NAVAL ANALYSES

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ABSTRACT

First-term reenlistment decisions for recommended and eligible Marines in FY 1980 through FY 1990 are analyzed in this research memorandum. Particular attention is given to the retention effects of selective reenlistment bonuses on Marines in different Armed Forces Qualification Test (AFQT) score categories. Additionally, reenlistment behavior for Marines of different marital statuses, grades, and length of initial enlistment contracts are analyzed.

EXECUTIVE SUMMARY

In the recent past, there have been substantial changes in the characteristics of enlisted Marines, as well as changes in Marine Corps personnel policy. First, enlisted Marines today are both smarter and better educated than they were in the earlier years of the 1980s. Second, although the percentage of recruits who enter the Marine Corps married or with dependents has remained virtually unchanged over time, the Marine Corps has experienced substantial increases in the marriage and dependency rate for enlisted personnel. Third, first-term enlistment contracts have been lengthened so that Marines now average more years of service at the first reenlistment point. Finally, there has been an increase in both time in service (TIS) and time in grade (TIG) for promotions to corporal (Cpl) and sergeant (Sgt). The impact of these changes on reenlistment decisions of first-term enlisted personnel (zone A decisions) is the subject of this research memorandum.

The main analysis focused on zone A reenlistment decisions of a random sample of almost 27,000 Marines in the FY 1980 through FY 1990 period. Reenlistment probability was estimated as a function of the selected-reenlistment-bonus (SRB) multiple, grade, background characteristics, length of the initial contract, whether or not an extension was executed immediately before the decision, military occupational specialty (MOS) group, a civilian-to-military pay index, and the civilian unemployment rate.

Table I details the characteristics of the sample as well as the average reenlistment rate of Marines with the different characteristics. A close examination of the average differences in reenlistment rates is warranted, as the multivariate statistical analysis substantiates the findings in table I.

SRBs exert a strong and regular impact on the decision to reenlist. Over the period, 55.5 of the reenlistment decisions were made by Marines in MOSs not offered an SRB; the reenlistment rate for these Marines was 24.6 percent. In contrast, the reenlistment rate for Marines in MOSs offered level-one SRBs¹ was 34.5 percent. For each increase in the bonus award level, table I shows an increase of about 6 percentage points in the reenlistment rate. Moreover, detailed analysis in the main text shows that the strongest impact of SRBs is for Marines with the highest scores on the AFQT. In brief, SRBs increase both the quantity and the quality of Marine Corps reenlistments.

1. The bonus dollars a Marine will receive is the SRB level multiplied by the Marine's monthly base pay multiplied by the number of years for which the Marine reenlists.

Table I. Reenlistment rate, by characteristics of recommended and eligible Marines making Zone A reenlistment decisions, FY 1980 through FY 1990

Characteristic	Percent of sample	Reenlistment rate (%)
Overall average		32.4
SRB level offered		
None	55.5	24.6
Level one	9.8	34.5
Level two	16.7	39.1
Level three	8.0	45.7
Level four	6.9	50.6
Level five	2.3	53.5
Level six	.8	59.6
Grade		
E3	23.0	21.2
E4	58.8	33.5
E5/E6	18.2	44.5
Marital/dependency status		
Not married, no dependents	64.6	24.8
Not married, dependents	2.6	48.4
Married	35.4	44.6
Either married or with dependents	38.0	44.9
Two or more dependents	13.0	49.0
Other individual background characteristics		
Male	95.2	31.6
Female	4.8	49.0
Black	18.0	50.2
Hispanic	5.7	31.2
Not black or Hispanic	76.3	28.3
HSDG (Tier I)	84.5	31.1
AFQT I-II ^a	22.7	30.5
AFQT I-III ^a	37.9	31.2
Length of prior contract		
Three years	21.3	29.2
Four years	77.6	33.2
Five or six years	1.1	39.1

a. If missing AFQT scores are omitted, 32.0 percent of the sample are AFQT category I-II and 53.4 percent are AFQT category I-III. The AFQT scores of recommended and eligible personnel have increased significantly over the decade. In FY 1990, 36.1 percent of Zone A recommended and eligible Marines were AFQT category I-II and 60.5 percent were AFQT category I-III.

The relationship between AFQT score categories at accession and after the first reenlistment is a subject of considerable interest. The 1980s saw substantial increases in the proportion of Marine Corps accessions with high AFQT scores. These Marines with high AFQT scores have lower first-term attrition and are thus more likely to be in the population of recommended and eligible Marines making reenlistment decisions. While table I shows a slightly lower than average reenlistment rate among AFQT category I-II Marines (30.5 versus 32.4) for the sample of reenlistment decisions in the 1980s, the reenlistment rates in FY 1989 and FY 1990 of these category I-II Marines were higher than average. The last big increase in accession quality was in FY 1986, and it is these Marines who are now making reenlistment decisions. It appears that the Marine Corps investments in improving accession quality are paying off in higher retention, as well as in better performance and lower first-term attrition.

Marines who make their first reenlistment decision at a higher grade are more likely to reenlist. Over the decade, however, as promotion rates slowed, there were some changes in the reenlistment rates by grade. The largest changes were in the lance corporal reenlistment rate, which increased sharply. Presumably making the reenlistment decision at the grade of lance corporal at the end of the decade had a more positive connotation about a successful first term of service than it had at the beginning of the decade.

Reenlistment rates of Marines are sharply delineated by marital/dependency status; Marines who are married (or have dependents) at this decision point are considerably more likely to reenlist than those that are single. The average reenlistment rate for unmarried Marines was 24.8 percent, while the average rate for Marines who were married or who had dependents was almost 45 percent. Although the authors are not aware of any previous analysis of Marine Corps retention that explicitly examined marital or dependency status, these findings are consistent with findings for the other services.

The estimating equations fit the data extremely well, and coefficient estimates achieved high levels of statistical significance. Overall, the results suggest that higher SRBs, higher grade, longer initial enlistments, females, blacks, and married individuals are more likely to reenlist. Finally, the impact of SRBs is strongest for Marines who test in categories I and II of the Armed Forces Qualification Test (AFQT).

While the Marine Corps has used its SRB budget to channel reenlistments to required personnel, it has considerably less ability to manipulate the relationship of military to civilian pay or the civilian unemployment rate. Yet, both of these factors have played important roles in the reenlistment equation, particularly in the early 1980s. A 1-percentage point increase in the CNA-constructed military-to-civilian pay index for first-term personnel was associated with a 0.6-percentage point increase in the reenlistment rate. Similarly, a 1-percentage point increase in the 20- to 24-year-old male unemployment rate (a

fairly small historical change) was associated with a 0.6-percentage point increase in the Marine Corps reenlistment rate.

Further analysis focused on the timing of the reenlistment. FY 1989 decisions were partitioned into those made before the fiscal year of contract expiration (out-year reenlistments) and those made in-year. The basic findings are that Marines with longer initial contracts and high AFQT scores are more likely to be out-year reenlisters than in-year reenlisters. Higher SRB levels induce out-year reenlistments. Additionally, proportionally fewer of the reenlistments for black Marines are out-year than for the other racial/ethnic groups. For other characteristics, in FY 1989 at least, Marines appear to reenlist in roughly the same mix of in-year and early reenlistments as is average for the Corps.

Finally, during the course of the study, a permanent longitudinal decision database was constructed, and computer programs to update these files were finalized. Thus, future retention analyses can extract decisions and the background information on Marines making these decisions in a time frame that lags real-time decisions by only about three months.

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INTRODUCTION

In the recent past, there have been substantial changes in the characteristics of enlisted Marines, as well as changes in Marine Corps personnel policy. The impact of these changes on reenlistment decisions of first-term enlisted personnel, and on the ability of the Marine Corps to retain quality personnel, is the subject of this research memorandum.

First, during the past decade, the Marine Corps substantially improved accession quality. Today's enlisted Marines are both smarter and better educated than they were in the earlier years of the 1980s. In the past ten years, the percentage of recruits who were high school diploma graduates (HSDGs, or Tier I) with test scores in the top half of the nationally normed Armed Forces Qualification Tests (AFQT) more than doubled (see figure 1). While it is well known that accessions with these characteristics have lower attrition during the first term of service and higher levels of job performance (see [1 through 4]), there is little information regarding how these Marines respond to reenlistment incentives offered by the Marine Corps.

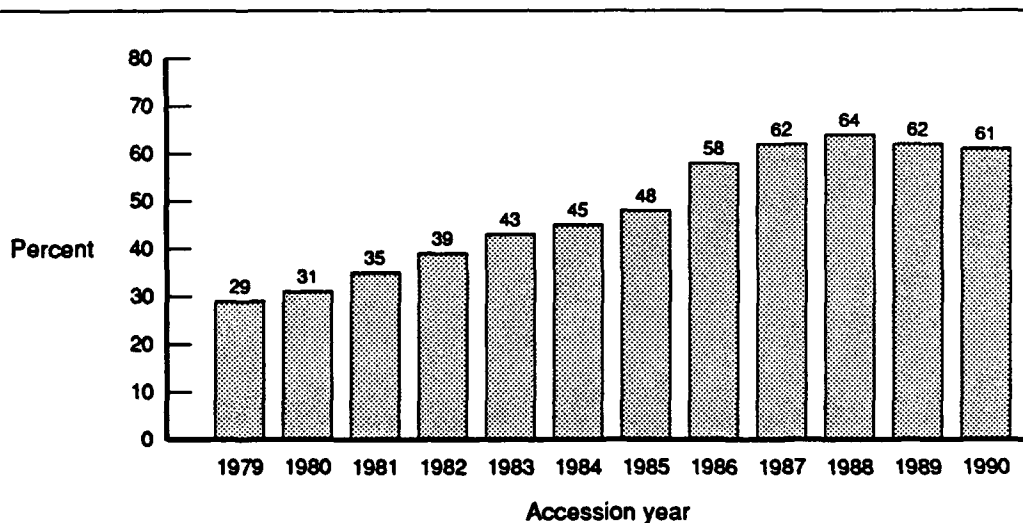


Figure 1. Quality recruits (AFQT I-III HSDGs) as a percentage of total recruits

Second, although the percentage of recruits who enter the Marine Corps married or with dependents has remained virtually unchanged over time, the Marine Corps has experienced substantial increases in the marriage and dependency rate for enlisted personnel, particularly for personnel within the first term of service. Figure 2 details some of these changes; a more complete discussion can be found in [5]. In

addition to budgetary implications for the changes in marital and dependency rates, questions have arisen about possible differences in retention behavior of Marines with different marriage and dependency statuses.¹

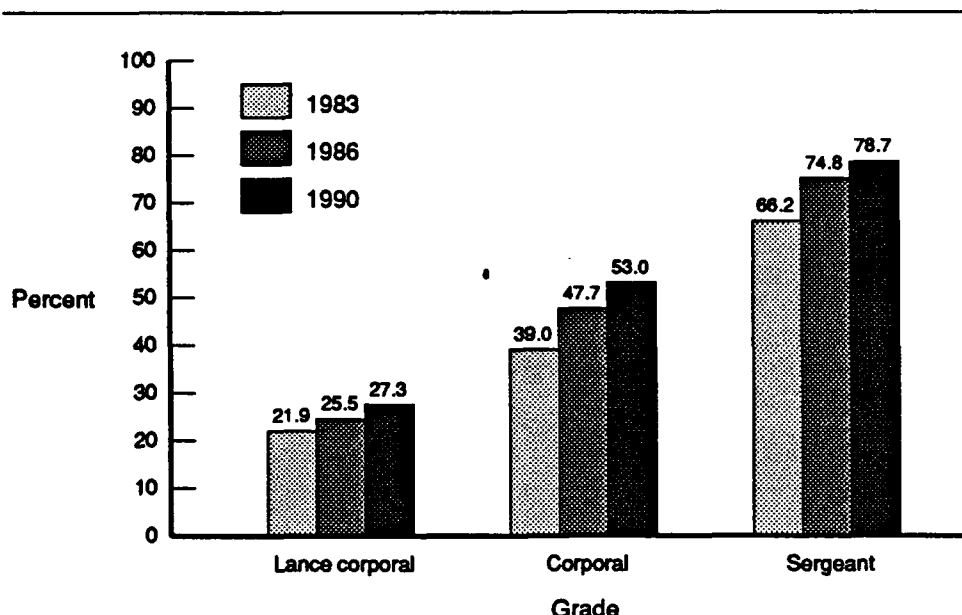


Figure 2. Dependency rates for enlisted Marines

Third, the Marine Corps has made substantial changes in the length of the first-term enlistment contract. While in the early 1980s first-term enlistment contracts were generally three or four years, by the latter part of the 1980s they were generally four or six years (see figure 3). FY 1990 is the first year that substantial numbers of Marines with longer initial enlistment contracts made reenlistment decisions.² Little is known about the impact of the length of initial contract upon the subsequent decision to reenlist or leave the Marine Corps.

1. Additional concerns relate to readiness issues that are outside the scope of this paper.

2. In FY 1990, slightly over 1,000 Marines with five- or six-year initial enlistment contracts made first-term reenlistment decisions. These numbers will grow three- or four-fold in FY 1991 and years following.

Finally, at least since the mid-1980s, there has been an increase in both time in service (TIS) and time in grade (TIG) for promotions to corporal (Cpl) and sergeant (Sgt). This slowdown in promotion has been the result of high retention and little change in the grade structure (see [6] for more information).¹

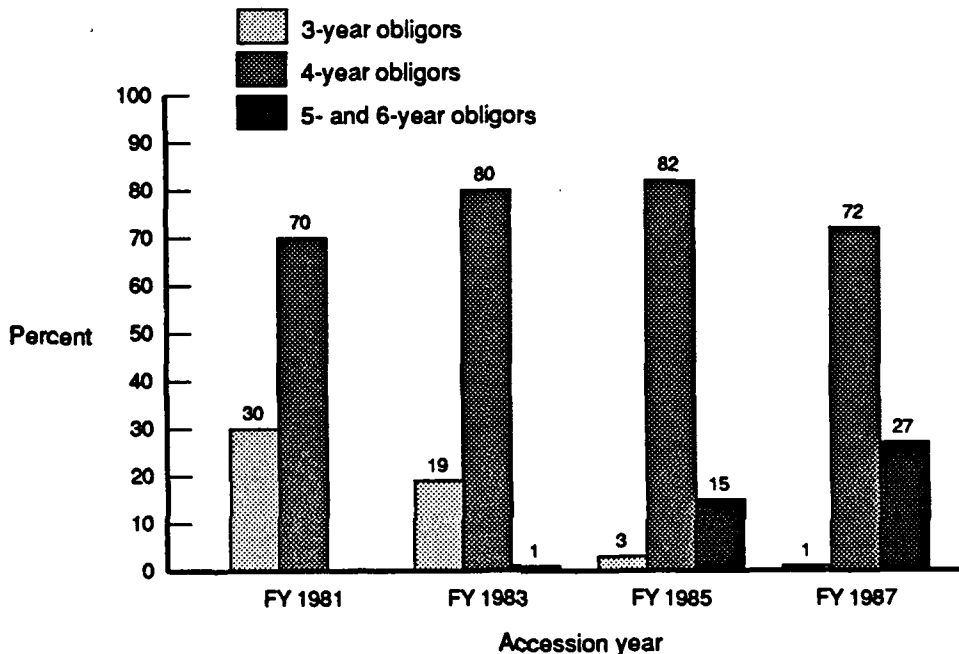


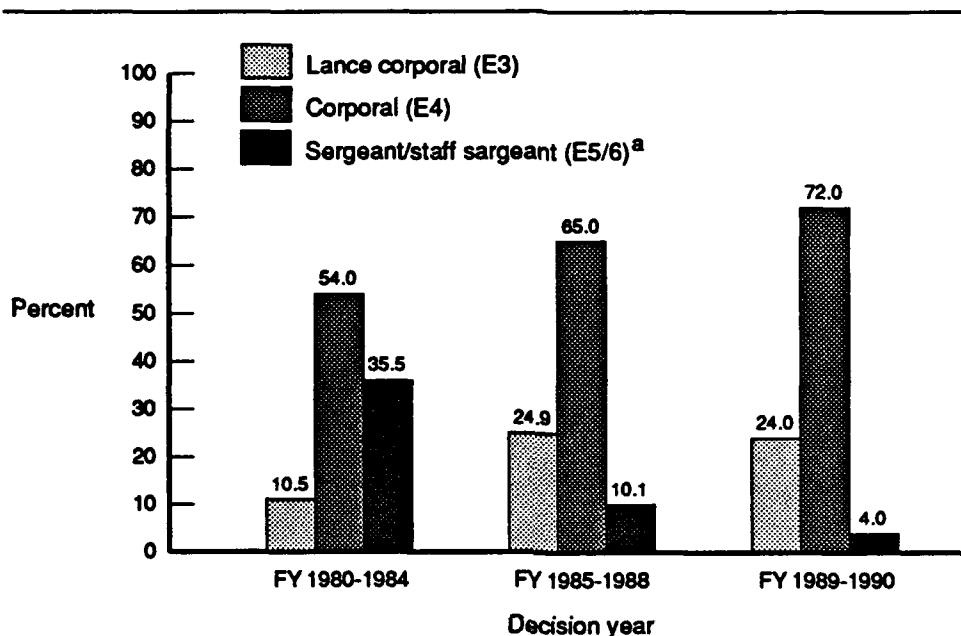
Figure 3. Percentage of Marine Corps accessions, by length of initial contract

Figure 4 illustrates the grade distribution of recommended and eligible Marines making their first reenlistment decisions at three points in time, FY 1980 through FY 1984, FY 1985 through FY 1988, and FY 1989 through June 1990.² In order to reflect only changes in the speed of promotion, the figure depicts only Marines with four-year initial enlistment contracts. While in the early 1980s slightly over 35 percent of Marines making their first reenlistment decision were sergeants, this percentage had shrunk to less than 5 percent in FY 1989

1. Promotions in grades corporal to sergeant-major are vacancy driven. For a promotion to occur, a space must be available in the next grade.

2. See [6] for a more detailed examination of changes in TIS and TIG in the decade of the 1980s.

and FY 1990.¹ Since it is well established that grade is an important factor in the reenlistment decision, it is important to understand how the slowdown in promotion rates has affected reenlistment decisions.



a. Staff sergeants have always been less than 1 percent of this population, (0.5 percent in FY 1980-1984, 0.1 percent in FY 1985-1988, and 0.4 percent in FY 1989-1990).

Figure 4. Grade distribution at first reenlistment decision: recommended and eligible Marines with initial obligations of four years

Against this backdrop of changes in both the characteristics of enlisted Marines and in Marine Corps policy, this work examines the first-term reenlistment decisions of Marines in the FY 1980 through FY 1990 time period. The Marine Corps makes extremely careful selections at this reenlistment point. Local commanding officers certify Marines as recommended and eligible for reenlistment, and Marine Corps monitors at Headquarters determine whether additional personnel are

1. Because of changes in the length of the initial enlistment--in particular, because FY 1989 through FY 1990 were the first years that five- and six-year obligors made reenlistment decisions--figure 4 somewhat overstates the changes in grade for all Marines at the first reenlistment point. In FY 1990, for example, 8 percent of all recommended and eligible Marines making first-term reenlistment decisions were sergeants (see table 8).

required in the Marine's MOS before approval of a reenlistment request.¹ Marine Corps policy states that this "quality cut"--by the Marine's individual record as certified by the Marine's commanding officer and by Marine Corps needs as certified by the monitors--be achieved before promotion to sergeant (E5).

After a detailed examination of reenlistment decisions throughout the entire period, reenlistment decisions in FY 1988 through FY 1990 are separately analyzed to identify possible changes in behavior as well as to investigate the reenlistment behavior of Marines with five- and six-year initial contracts. All analysis is restricted to those Marines that the Marine Corps has deemed "recommended and eligible" for reenlistment.

DATA FOR THE ANALYSIS

Personnel File Data

Other tasks by CNA on the Marine Corps Enlisted Retention Study constructed a permanent longitudinal decision-based personnel file for all enlisted Marines (the longitudinal ARSTAT tracking file--see [7]). This file contains background information, records of all grade changes (promotions/demotions), and a history of all important decisions (accession, effective extensions, reenlistments, and separations) for each enlisted Marine. For each of these decisions, considerable information on the Marine's status at the time of the decision is retained. Updated quarterly, the file begins in October 1978.²

The analysis described in this research memorandum is restricted to reenlistment decisions, by "recommended and eligible" Marines, in the first 72 months of service. These are often called Zone A decisions, and reenlistment bonuses in these length-of-service cells are identified as Zone A reenlistment bonuses. This reenlistment decision is a critical one for the Marine Corps and is currently the only reenlistment decision for which skill requirements of the Corps are taken into account. Marines in their second enlistment are regarded as part of the career force.³

1. The Career Force Alignment Plan determines the skill requirements by MOS. If additional personnel are not required in the Marine's MOS, an attempt is made to find an MOS that is short of personnel and for which the Marine qualifies. The introduction of career force controls in 1985 and 1986 considerably tightened this process.

2. The file is transaction based and includes all accession, reenlistment, and separation information. All transactions for Marines who entered the Marine Corps after 1978 will be found in the file. For Marines who were in the Marine Corps in 1978, only the transactions since 1978 are included in the file.

3. The career force can be defined by length of service, grade, or by the enlistment (second or beyond).

For each decision, variables that reflect the Marine's background characteristics and variables that reflect the Marine's decision or his status at the time of the decision were constructed. Appendix A provides more detail on how the data were constructed. Background characteristics include gender, racial/ethnic group, education and test scores at entry into the Marine Corps, and the length of his initial obligation. Variables that describe the Marine at the time of the decision include the Marine's age, grade, whether or not the Marine had executed an extension before the decision, a set of variables describing marital/dependency status, and the Marine's primary military occupational specialty (PMOS).¹

The final step was to append information that characterized the environment at the time the Marine made the reenlistment decision--the level of the SRB for the Marine's PMOS at the decision, the civilian unemployment rate for 20- to 24-year-old males, and an index of military to civilian pay. Because CNA has been unable to locate information on SRB bonus multiples for either FY 1978 or FY 1979, the Zone A reenlistment database begins in FY 1980.

SRB, Civilian Unemployment Rates, and Military-to-Civilian-Pay Index Data

The direction of relationships between reenlistments and pay (either through bonuses or regular compensation) has been well established both theoretically and empirically (see [8], [9], or [10]). Other things being equal, larger bonuses or higher levels of military pay relative to civilian pay are associated with higher reenlistment rates. Similarly, higher civilian unemployment rates are associated with higher retention rates for military personnel.

Occasionally, however, the meaning of these relationships is still misunderstood. The theoretical model does not say that a Marine will leave the Corps if the Marine can earn more in the civilian sector than in the Marine Corps. There are clearly substantial numbers of Marines who would earn more as civilians than they earn as Marines (and, conversely, probably nontrivial numbers of ex-Marines would have been better off financially had they remained in the Corps).

1. Most analyses in this paper group the PMOSs into seven categories. Appendix B details the categories by PMOS and also contains a count of the number of decisions by PMOS for a random sample of almost 27,000 Zone A reenlistment decisions in the FY 1980 through June 1990 period. In recent years, a small number of reenlistees have received a selective reenlistment bonus (SRB) for their additional military occupational specialty (AMOS). AMOS information for the Marine was not available on the input tapes used to create the ARSTAT longitudinal tracking file. Thus, in this analysis, any SRBs given for an AMOS are ignored; all SRB information is based on the Marine's PMOS.

The relationship is probabilistic rather than deterministic, suggesting that changes in the relative compensation can change reenlistment probabilities. And, with given preferences or attitudes toward military life, some Marines would be indifferent between staying or leaving the Marine Corps, and changes in military pay relative to civilian pay would result in some Marines deciding whether or not to stay. Thus, other things being equal, when military compensation rises relative to civilian compensation, reenlistment rates can be expected to increase.

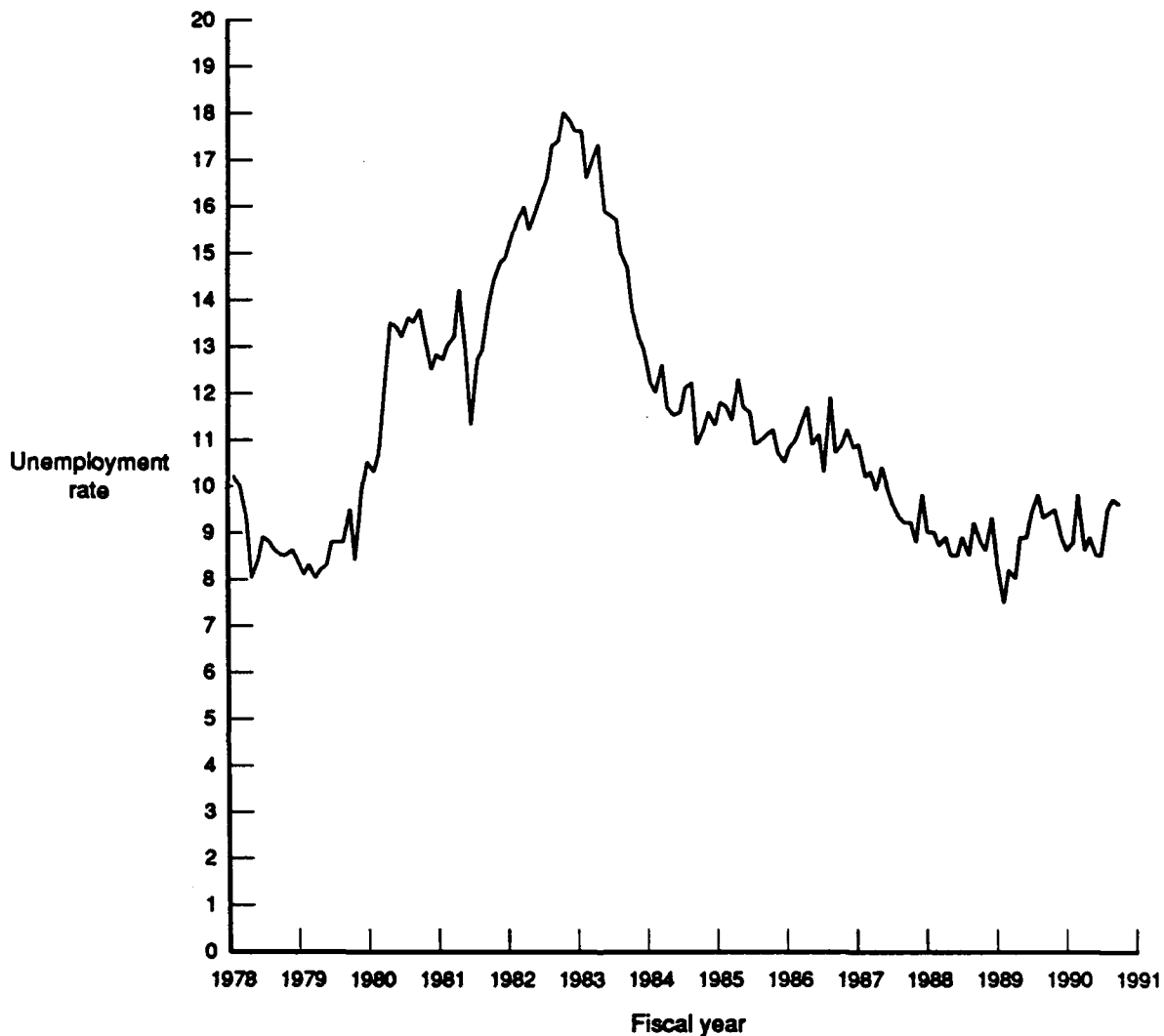
An SRB is a reenlistment incentive used carefully by Marine Corps planners to shape the composition of reenlistments. (The total number of bonus dollars a Marine will receive is determined by multiplying the SRB multiple (from zero to six) by the Marine's monthly base pay and then by the number of years for which the individual reenlists.) Since FY 1983, the Marine Corps has paid reenlistment bonuses only for reenlistments of four years or longer. Planners affect reenlistment rates by varying the bonus multiples for the different MOSs. Previous work at CNA had established historical SRB bonus multiple files from FY 1980 to FY 1985 (see [11]). These were updated with Marine Corps messages through June of 1990 and are reproduced in table C-1 of appendix C.¹

Some MOSs have never had an SRB, while others have usually had an SRB. As the information in appendix C illustrates, however, the general pattern is frequent adjustments in the multiple to a particular MOS, as Marine Corps planners try to shape the force. For example, PMOS 0231 (Intelligence Specialist) had SRB levels of zero, one, three, four, and five over this ten-year period. The level was zero for most of FY 1980; three for FY 1981-1982; four, then three, then one for FY 1983; one or zero for FY 1984 and FY 1985; and three, four, or five since FY 1986.

The civilian unemployment rate for 20- to 24-year-old males was chosen as an overall barometer of the ease or difficulty of finding civilian employment (see figure 5). The variation in the unemployment rate over the time period has been substantial, with the 1983 recession clearly visible in the figure.

1. The change from three- to four-year reenlistments for SRB eligibility was made in FY 1983, and it can be clearly seen in the length of reenlistment commitments made by Marines in MOSs offering SRBs. Additionally, the Marine Corps has not offered level-six SRBs since FY 1983 (see table C-2 of appendix C).

Depending upon the decision year, between 2 and 5 percent of the reenlistees in MOSs with SRBs reenlisted for a shorter time than was required for payment of the SRB. For example, there were 4,892 reenlistments in FY 1989 (2,165 in MOSs with a bonus and 2,727 in MOSs without a bonus). In the MOSs without a bonus, 7 percent of the reenlistments were for two years, 40 percent for three years, 50 percent for four years, and 3 percent for five or six years. In the MOSs with an SRB, 2 percent of the reenlistments were for two years, 2 percent for three years, 79 percent for four years, and 17 percent for five or six years.



SOURCE: Bureau of Labor Statistics; all rates are seasonally adjusted.

Figure 5. The unemployment rate of 20- to 24-year-old males

Previous analyses of reenlistment decisions have taken one of two general approaches to modeling the impact of compensation. One approach utilizes the annualized cost of leaving (ACOL) methodology (see [8 through 11]). This methodology focuses the reenlistment decision on differences in future expected compensation for the two choices (remaining in the Marine Corps or leaving for civilian sector employment). For each Marine an ACOL variable is constructed that reflects the difference in expected compensation (military minus civilian) over the work

horizon.¹ The main difficulty with the ACOL methodology is that it has been difficult to update (or project) these expected pay streams accurately.

The alternative approach, used here, is to construct a pay index that reflects only the changes in average levels of military-to-civilian compensation. Unlike the ACOL model, in this approach only some of the impact of pay on the reenlistment decision is attributed to the pay variable. Some differences in reenlistment propensities for Marines with given characteristics are probably related to differences in relative pay.² Measuring the impact of pay by an index has several advantages, the most important being that such an index is straightforward to update and project.

Average military pay is a function of the congressionally authorized increases to the pay table as well as an individual's length of service and grade. It was decided to make our military pay variable reflect only changes in the pay table.³ For average civilian pay, the Bureau of Labor Statistics publishes a quarterly series on the "usual weekly earnings" of full-time wage and salary workers [13]. To reflect the civilian opportunities for Marines making zone A reenlistment decisions, the usual weekly earnings of full-time 20- to 24-year-old male wage and salary workers was used.⁴

1. Expected civilian earnings are estimated as a function of education, race/ethnic background, gender, AFQT category, etc. These earnings are projected until retirement, and then the entire expected earnings stream is appropriately discounted to the present-year dollars. The expected earnings stream, should the Marine remain in the Corps, is computed, discounted to present-year dollars. The annualized cost of leaving is the difference between the military and civilian pay streams.

2. Any systematic deviation from the average relative compensation for Marines with given characteristics will be reflected in differences in reenlistment propensities for Marines with those characteristics. For example, female Marines are more likely to reenlist than male Marines. A part of the reason for the higher female reenlistment rate may be due to differences in military/civilian pay ratios for them.

3. For military pay, the last Quarterly Review of Military Compensation had built a series for regular military compensation (see [12]). The study team updated this series to the present. All the statistical models reported in this paper contain the individual's grade and the length of his initial contract. Thus, some of the impact of pay will be found in the effects estimated for grade and years of service.

4. The last decade has shown considerable change in the civilian earnings of males in different age groups. In particular, the earnings of males in their twenties have fallen relative to the earnings of older males. Thus, using a wage index for all males would increasingly overstate the civilian wage opportunities for young males in the years of the 1980s.

The pay index was constructed by dividing the military pay series by the civilian pay series and normalizing the index to 1.0 for the first quarter of FY 1979. Because military pay changes only periodically (usually once a year) and the civilian pay changes each quarter, an index constructed simply by dividing military pay by civilian pay would jump up at the increase in the pay table and then gently erode for the next three quarters. Military pay increases are, however, anticipated and usually announced months in advance. Thus, the index was smoothed by averaging (the pay index is the simple average of pay index value for the current quarter and for the next two quarters).

Figure 6 displays how the pay index has changed over time. The 1981 and 1982 military pay increases were substantial and are clearly visible in the figure. Since FY 1983, however, the index has been relatively flat, meaning that there has been no trend since 1983 in the relationship between average military and civilian pay for young men.¹

Zone A Decisions

There were over 225,000 zone A decisions (reenlist, extend for at least one year, or separate recommended and eligible) between FY 1980 and June 1990. Table 1 summarizes these decisions. First, there has been considerable variation in both the reenlistment rate and the number of reenlistments per year. Generally, however, there were more decisions in the early years of the 1980s when the length of the first-term contract was shorter. Second, extensions of one year or more have never been very common for first-term Marines. There have been virtually no long extensions since FY 1983 and none at all since FY 1984. Since an extension merely postpones the time when a decision to reenlist or separate is made, it was decided to restrict the analysis to "final" decisions--to reenlist or to separate.²

Table 1 further divides reenlistments into those made within the fiscal year the initial contract expires (in-year reenlistments) and those made before the fiscal year the initial contract expires (out-year reenlistments). Analysis of the impact of bonuses or military pay needs to take all reenlistments into account in order to obtain unbiased estimates. Marine Corps end-strength planners, however, focus on meeting end-strength for the current fiscal year. Marines whose contracts will expire in the next fiscal year are committed for this fiscal year: that is, whether they reenlist now has no effect on current year's

1. The index was normalized to 1 for the first quarter of FY 1979. The choice of normalization period is arbitrary. The usefulness of the index is in identifying changes in relative compensation between the military and civilian sectors. The precise value of the index at a point in time is not particularly meaningful.

2. Marines who extend are not excluded from the data set; they enter as an observation when they finally make a decision either to reenlist or to leave.

Table 1. Zone A decisions for recommended and eligible Marines, FY 1980 through third quarter FY 1990

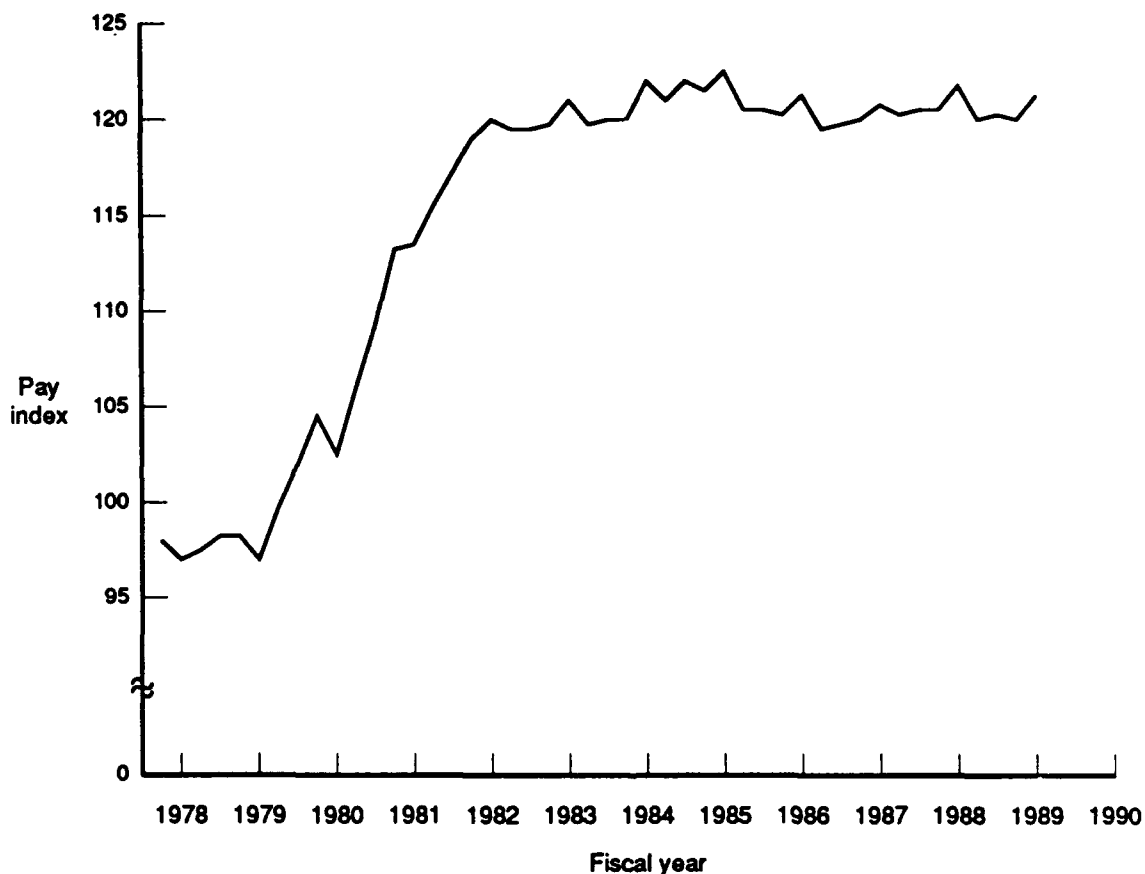
Fiscal year	Reenlistments					(1)/((1)+(3)) (reenlistment rate)
	(1) Total reenlist-ments	(2) In-year reenlist-ments ^a	(3) Out-year reenlist-ments ^a	(4) Number that extend at least one year	(5) Number that leave	
1980	5,515	2,991	2,524	996	17,306	.24
1981	7,540	3,836	3,704	897	14,900	.34
1982	7,106	4,504	2,602	1,343	12,222	.37
1983	7,522	5,808	1,714	1,812	12,157	.38
1984	9,493	5,937	3,556	26	11,453	.45
1985	8,216	4,845	3,371	0	13,254	.39
1986	9,293	5,112	4,181	0	13,080	.42
1987	7,571	3,687	3,884	0	13,335	.36
1988	5,608	4,290	1,318	0	15,570	.26
1989 ^b	4,892	3,528	1,364	0	12,357	.28
1990 ^b	3,543	2,916	627	0	8,635	.29

NOTE: Includes Marines whose component codes indicate that they count for active-duty end strength (11, 12, 13, 3B, A2, A3, A5, A7, AA, AB, C1, C2, C3, C9, CB, CD, CH), who have less than 72 months of service, and who have not previously received a Zone A bonus. Of the 225,642 decisions, 4,707 (2.1 percent) were on two-year contracts, 51,652 (22.9 percent) were on three-year contracts, 166,406 (73.7 percent) were on four-year contracts, 260 (0.1 percent) were on five-year contracts, and 2,617 (1.2 percent) were on six-year contracts before the decision. Marines on two-year contracts were primarily making their second reenlistment decision in Zone A; over 80 percent of these decisions were in FY 1980 through FY 1984 (three-year initial contracts, followed by two-year reenlistments without a selected reenlistment bonus (SRB), and then the decision captured in this analysis).

a. In-year reenlistments are defined as reenlistments in the fiscal year of the end current contract (ECC). Out-year reenlistments are defined to be reenlistments in a year prior to the ECC.

b. Through the third quarter only. It is assumed that reenlistments in the fourth quarter of FY 1990 will be primarily out-year reenlistments.

endstrength because their current contracts commit them for this fiscal year. Because strength planners must estimate this year's expected losses in order to derive required accessions, predicting in-year reenlistments--reenlistments of Marines whose contract will expire within the year--are of particular importance. Possible differences in the characteristics of Marines who reenlist out-year versus in-year will be analyzed separately in a later part of the paper.¹



NOTE: Constructed by CNA using data from OASD (FM&P) and Bureau of Labor Statistics

Figure 6. Index of military pay to civilian pay: males, age 20 to 24

1. Marine Corps policy concerning out-year reenlistments has changed over time. In FY 1983, for example, the Marine Corps stopped all out-year reenlistments in mid-year. Because a complete historical record for these policies was unavailable, the analysis of in-year versus out-year reenlistments was restricted to recent reenlistment decisions.

While it is possible to tabulate decisions for over 225,000 Marines, it is not practical to estimate retention models with this number of observations. Thus, from this universe of all reenlistment or separation decisions of zone A enlisted Marines from FY 1980 through the third quarter of FY 1990, a random sample was drawn for analysis.¹ The final sample included the reenlistment or separation records for 26,840 Marines.

REENLISTING IN THE MARINE CORPS

Descriptive Statistics for Zone A Reenlistments: FY 1980 Through FY 1990

Table 2 details the characteristics of the sample. There were 8,702 reenlistments and 18,138 separations (an average reenlistment rate of 32.4) for this random sample of recommended and eligible Marines making first-term reenlistment decisions in the FY 1980 through FY 1990 period. The explanatory variables that will be used to differentiate reenlistment probabilities are grouped in the table by category (SRB level, grade, etc.). The table details the percentage of the sample represented by the characteristic, the reenlistment rate for Marines with the particular characteristic, and whether or not Marines with the characteristic have more than an average proportion of their reenlistments out-year. A close examination of the differences in reenlistment rates shown in these tabulations is warranted, as the multivariate statistical analyses that follow substantiate the story told by these average differences.

The first category is the SRB level offered the Marine. Over the period, 55.5 percent of Marines making this reenlistment decision were not offered an SRB, 9.8 percent were offered a level-one bonus, 16.7 percent a level-two bonus, 8.0 percent a level-three bonus, 6.9 percent a level-four bonus, 2.3 percent a level-five bonus, and 0.8 percent a level-six bonus.² The table reveals a strong and regular impact for SRB on the decision to reenlist. The average difference in the reenlistment rate for Marines offered a level-one SRB (versus no SRB) is 10 percentage points. And, the average reenlistment rate rises about 6 percentage points for each unit increase in the SRB level. Moreover, SRBs tilt the reenlistments toward early (out-year) decisions.

As expected, Marines who make a zone A decision at a higher grade are more likely to reenlist. While only 21.2 percent of lance corporals reenlisted, 33.5 percent of corporals and 44.5 percent of sergeants reenlisted. Since table 2 summarizes information from over a decade of decisions, however, several factors are embedded in these average differences in reenlistment rates by grade. One important factor is the slowdown in the speed of promotion over the decade.

1. A small number of observations were dropped because of missing or clearly bad data.

2. There have been no level-six bonuses offered since FY 1983.

Table 2. Reenlistment rate by characteristics of recommended and eligible Marines making Zone A reenlistment decisions, FY 1980 through FY 1990

Characteristic	Percent of sample ^a	Reenlistment	
		Rate (%)	More likely than average to be out-year
Overall average		32.4	
SRB level offered			
None	55.5	24.6	No
Level one	9.8	34.5	Yes
Level two	16.7	39.1	Yes
Level three	8.0	45.7	Yes
Level four	6.9	50.6	Yes
Level five	2.3	53.5	Yes
Level six	.8	59.6	Yes
Grade			
E3	23.0	21.2	Yes
E4	58.8	33.5	No
E5/6	18.2	44.5	Yes
Marital/dependency status			
Not married, no dependents	64.6	24.8	No
Not married, dependents	2.6	48.4	No
Married	35.4	44.6	Yes
Either married or with dependents	38.0	44.9	Yes
Two or more dependents	13.0	49.0	Yes
Other individual background characteristics ^b			
Male	95.2	31.6	No
Female	4.8	49.0	Yes
Black	18.0	50.2	No
Hispanic	5.7	31.2	No
Not black or hispanic	76.3	28.3	Yes
HSDG (Tier I)	84.5	31.1	No
AFQT I-II	22.7	30.5	Yes
AFQT I-IIIA	37.9	31.2	Yes
Length of prior contract			
Three years	21.3	29.2	No
Four years	77.6	33.2	Yes
Five or six years	1.1	39.1	Yes

Table 2. (Continued)

Characteristic	Percent of sample ^a	Reenlistment	
		Rate (%)	More likely than average to be out-year
Other Marine Corps background			
Extension prior to decision	11.0	46.4	No
MOS area			
Infantry	27.7	23.3	No
Air mechanical, fixed-wing	5.7	36.3	Yes
Air mechanical, helicopter	3.1	33.1	No
Air technical	8.6	32.9	Yes
Air, other	5.1	40.4	Yes
Other technical	9.7	28.1	No
Administration	13.1	44.5	No
Other, MOS	27.0	35.1	Yes

a. The data are a random sample of 26,840 Zone A reenlistment decisions in FY 1980 through FY 1990.

b. If missing AFQT categories are omitted, 32.9 percent of the individuals leaving were AFQT categories I and II (23.4/(100-28.8)) and 27.2 percent of the reenlistees were AFQT categories I and II (21.4/(100-29.4)).

Significantly smaller proportions of Marines are currently making reenlistment decisions at the rank of sergeant (and larger proportions at the rank of lance corporal) than were in the early 1980s. And, while the reenlistment rates each year show sharp differentiation within each grade, the reenlistment rates by grade have changed over the years. For FY 1980 through FY 1983 decisions, the reenlistment rates were 12.2 percent for lance corporals, 30.3 percent for corporals, and 40.6 percent for sergeants/staff sergeants; for FY 1984 through FY 1990 decisions, the reenlistment rates were 24.3 percent for lance corporals, 34.9 percent for corporals, and 49.2 percent for sergeants/staff sergeants. Thus, over the decade, reenlistment rates increased somewhat within each grade, with the rate for lance corporals effectively doubling.

The effects of grade on reenlistment timing (out-year versus in-year) are complicated. First, there are partly definitional effects because an earlier decision means there is less time for a promotion. Second, there is the strong tendency of Marines with five- or six-year initial contracts to reenlist out-year (these Marines have a higher grade distribution). The outcome of these two somewhat conflicting forces is that reenlistments of lance corporals and sergeants are more likely than average to be out-year reenlistments.

The next category of variables summarizes marital and dependency statuses. The results support findings for other services (see [5]). Thus, while the findings in the table are not surprising, the authors are not aware of any previous analysis of Marine Corps retention that explicitly examined marital or dependency status. Reenlistment rates of Marines are sharply delineated by marital/dependency status: Marines who are married (or who have dependents) are considerably more likely to reenlist than those who are single. While only 24.8 percent of single Marines *without* dependents reenlist, 44.6 percent of married Marines reenlist. Although the proportion of single Marines *with* dependents is not large, almost half of these Marines reenlist. Marines with two or more dependents (regardless of marital status) were 13 percent of the population of recommended and eligible Marines; 49 percent of these Marines reenlist. Additionally, over the decade of the 1980s married Marines appear to be more likely than average to be out-year reenlisters.¹

The relationship between AFQT test score categories and the reenlistment/leave decision is complicated by the fact that accurate categories are missing for almost 30 percent of the Marines making these decisions in the 1980s. Generally, however, the high AFQT scorers (categories I and II) as well as HSDG Marines are slightly less likely than other Marines to reenlist. High AFQT score category recruits and HSDG recruits are, however, more likely to complete the first-term (not attrite) than are other recruits. Thus, these quality recruits are more heavily represented in the population making reenlistment decisions than they were in the initial recruit cohort. (See [3] for more discussion on this point.)

Other differences in reenlistment rates include higher rates for females, blacks, and those who executed an extension prior to the enlistment decision.² For the MOS groupings, the reenlisters are less likely to be from infantry MOSs, and more likely to be from administrative MOSs, than are the individuals who separate.³

1. Analysis of more recent data, in particular the mix of in-year/out-year reenlistment decisions in FY 1989 does not show this pattern of married Marines being more likely than average to reenlist out-year. These findings are discussed later in the paper.

2. Most of these extensions are very short. Executing an extension after the initial contract expired was considerably more common in the early 1980s than it has been recently. In FY 1989, for example, only 4 percent of recommended and eligible Marines executed extensions before making their leave/reenlist decision, whereas for the entire period, 11 percent of Marines executed an extension before making their final decision.

3. Appendix B shows how the MOSs have been grouped into the seven large areas.

While tabulations of reenlistment rates by different characteristics of Marines making reenlistment decisions can provide considerable insight into the factors associated with the reenlistment decision, they can also obscure relationships important to Marine Corps planners. For example, there is virtually no difference in the average values of the pay index for Marines who reenlisted versus Marines who separated (1.17 versus 1.16). Yet virtually all reenlistment studies have found a strong relationship between pay indices and reenlistment rates (see [8 through 11]). To obtain valid estimates of the effects of particular variables on the reenlistment decision, a multivariate model must be estimated. Only in such a model can confounding effects be statistically separated.¹

Estimating the Reenlistment Probability: The Logit Equation

Each of the 26,840 Marines in our sample either reenlisted or separated from the Marine Corps. Thus, it is a dichotomous decision (reenlist, don't reenlist) that requires examination. One wants to restrict the estimating function to credible values (probabilities of reenlisting no smaller than zero or larger than one). A common functional form is a binomial logit (discussed in more detail in appendix D). Logit equations estimate gently sloped S-shaped curves between the probability bounds of zero and one. Figure 7 illustrates a logit curve.

The estimating equation is nonlinear and is estimated by maximum likelihood techniques.² The estimated coefficients and associated t-statistics indicate the direction and the strength of the statistical relationship. The coefficients are used to calculate the slopes (or derivatives) of the relationships or to estimate the reenlistment probabilities predicted by the equation for different categories of Marines.³

1. The attempt with a multivariate model is to partition out the independent effects of grade, compensation, marital status, etc., on the reenlistment decision. Some characteristics, however, vary together. For example, Marines with longer initial enlistment contracts are more likely to be older, married, and of a higher grade at the first reenlistment decision point. If the characteristics are too highly intercorrelated, independent effects cannot be estimated. (Technically, this is called multicollinearity.) Fortunately, there is sufficient variation in the data to allow estimation.

2. All estimation was done with the statistical package LIMDEP.

3. Since the function is nonlinear, the value of the derivative depends on where it is evaluated. Most of the work in this paper evaluates the derivative at the mean of the data.

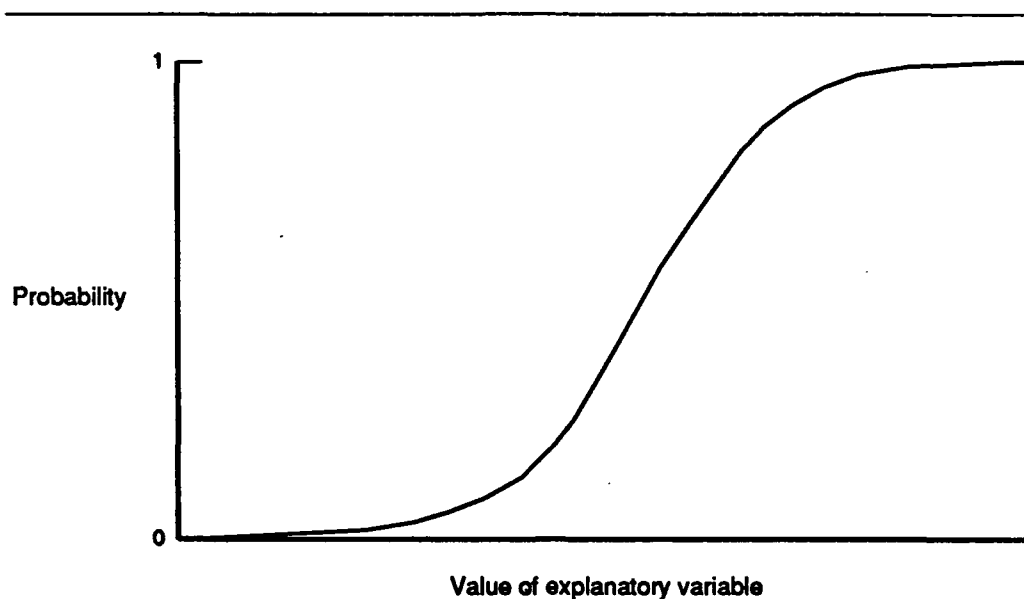


Figure 7. Example of a logit curve

LOGIT EQUATION ESTIMATES FOR REENLISTMENT DECISIONS: FY 1980 THROUGH FY 1990

The probability of reenlistment will be estimated as a function of the SRB bonus multiple (SRB_LEV), grade, background characteristics, the length of the initial contract, whether or not there was an extension immediately before to the decision, the MOS group, the pay index, and the civilian unemployment rate. Some specifications will omit the latter two variables (the pay index and the civilian unemployment rate) and substitute a set of fiscal year control variables.¹ A fiscal year control variable will "pick up" any effects that are peculiar to the year; these include any changes in attitudes in addition to changes in pay and the civilian unemployment rate.

Finally, a variable called SRB_AFQT12 is included in the specifications. It is designed to capture any additional impact that SRBs may have on the reenlistment decisions for Marines testing in the top two categories of the AFQT (AFQT12 Marines). This variable assumes a value

1. Estimating the equation with fiscal year control variables and either the pay index or the unemployment rate would confine the effects of pay and unemployment to effects within particular fiscal years. Since pay and unemployment vary little within particular years (and since the variation of interest is the change in these variables over the different years), the economic variables are not included in the equations that include fiscal year variables.

of one for each AFQT12 Marine who will receive an SRB if he reenlists; otherwise, the variable is zero.

Table 3 presents the logit coefficient estimates for the two basic specifications for the reenlistment equation. Specification 1 includes the pay index and civilian unemployment rate variables. Specification 2 omits these two variables and includes instead a set of control variables, one for each fiscal year.¹

The estimating equations fit the data extremely well. Coefficient estimates are statistically significant at very high levels (except for the Hispanic control variable, two MOS groups, and two of the fiscal year control variables). Additionally, the large chi-square statistics indicate very high levels of statistical significance for the entire equation. What, then, do these equations predict?

Overall, the results suggest that higher SRBs, higher grade, and longer initial enlistments are associated with higher reenlistment rates. Additionally, females, blacks, and married individuals are more likely to reenlist than other groups. Higher levels of the military-to-civilian pay (pay index) or higher civilian unemployment rates are additionally associated with higher reenlistment probabilities. AFQT12 Marines are less likely to reenlist, but for these Marines the SRB program provides an additional positive reenlistment inducement.²

Next to the coefficient estimates for each specification, the derivative (calculated at the average reenlistment rate) is detailed. Derivatives provide the predicted change in the reenlistment rate for a small change in the variable. For example, both specifications suggest that a one-level increase in the bonus multiple (SRB_LEV)³ will raise the predicted reenlistment rate 6.6 percentage points (.066).

1. Generally for categorical variables (for example, male versus female), one category needs to be omitted in order to estimate the equation. The coefficient estimates for the categorical variables are then interpreted as differences from the omitted category. Thus, for gender, the included variable is "male" and the estimated reenlistment effects for the variable are the differences in male relative to female retention behavior. Similarly, the estimates in table 3 omit a variable for FY 1990. Thus, the effects estimated for the different fiscal years should be understood as that year's impact, relative to the omitted year, FY 1990.

2. In another specification, the SRB level was also interacted with AFQT12. The results of this estimation, not reported, were similar to those reported in the text.

3. Appendix E contains logit equation estimates similar to those in table 3, but with separate indicator variables for each SRB level.

Table 3. Logit coefficients and derivatives for reenlistment decisions, FY 1980 through FY 1990

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
SRB_LEV	1.114	.301** (26.56)	.066	.302** (26.02)	.066
SRB_AFQT12	.110	.177** (2.57)	.039	.193** (2.79)	.042
AFQT12	.227	-.204** (-3.75)	-.045	-.231** (-4.21)	-.051
Cpl	.588	.642** (16.27)	.141	.648** (16.27)	.142
Sgt	.179	.989** (19.08)	.215	.973** (18.72)	.213
SSgt	.003	2.134** (7.77)	.468	2.129** (7.67)	.467
Married or dependents	.380	.831** (28.66)	.182	.828** (28.37)	.181
Pay index	1.167	2.657** (8.20)	.582	No	No
Civilian unemployment	.116	2.604** (4.19)	.571	No	No
Length of first contract	3.807	.072* (2.17)	.016	.099** (2.89)	.022
Prior extension	.110	.458** (10.30)	.100	.440** (9.81)	.096
Male	.953	-.235** (-3.62)	-.052	-.228** (-3.49)	-.050
HSDG	.845	-.116** (-2.90)	-.025	-.109** (-2.72)	-.024
Black	.180	1.066** (28.91)	.234	1.072** (28.85)	.235

Table 3. (Continued)

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
Hispanic	.057	.116* (1.87)	.025	.140* (2.25)	.031
Infantry	.277	-.415** (-10.50)	-.091	-.440** (-11.03)	-.096
Air mechanical, fixed-wing	.057	-.219** (-3.41)	-.048	-.242** (-3.75)	-.053
Air mechanical, helicopter	.031	-.267** (-3.20)	-.059	-.306** (-3.65)	-.067
Air, technical	.086	-.518** (-8.64)	-.114	-.542** (-8.99)	-.119
Air, other	.039	-.059 (-.782)	-.013	-.075 (-.998)	-.016
Other, technical	.097	-.095 (-1.75)	-.021	-.099 (-1.82)	-.022
Administrative	.131	.441** (9.55)	.097	.433** (9.33)	.095
FY 1980	.094	No	No	-.700** (-7.44)	-.153
FY 1981	.090	No	No	-.252** (-2.75)	-.055
FY 1982	.081	No	No	-.278** (-3.23)	-.061
FY 1983	.084	No	No	.050 (.632)	.011
FY 1984	.090	No	No	.286** (3.80)	.063
FY 1985	.095	No	No	-.006 (-.077)	-.001

Table 3. (Continued)

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
FY 1986	.106	No	No	.352** (4.86)	.077
FY 1987	.100	No	No	.261** (3.57)	.057
FY 1988	.105	No	No	-.394** (-5.25)	-.086
FY 1989	.088	No	No	-.206** (-2.71)	-.045
AFQT missing	.290	.173** (3.35)	.038	.273** (4.90)	.060
Constant	1.000	-5.573** (-13.52)		-2.226** (-13.22)	
Chi square		4,478.4		4,728.0	
Number of observations		26,840		26,840	

- NOTES: (1) The number in parentheses beneath each coefficient is an asymptotic t-statistic.
- (2) ** Coefficient is statistically significant at the 1-percent level (two-tailed test).
- (3) * Coefficient is statistically significant at the 5-percent level (two-tailed test).

Many of the explanatory variables in table 3 are indicator variables that assume the value of 1 if the Marine is in the appropriate category (AFQT12, Cpl, Sgt, SSgt, etc.). As above, the derivatives for these variables can be used to estimate changes in the reenlistment rate for small changes in the variables (for example, seeing how the reenlistment rate would be expected to change if the proportion married increased by .10). Probably, however, the effects of these variables are more easily captured in tables that contain estimated reenlistment

probabilities for Marines with different characteristics.¹ These tables will be detailed later in the paper.

Attempts were made to verify the basic model for individual MOSs. Appendix F contains estimates for eight different MOSs, six for which the sample contained sufficient numbers of observations for model estimation and two (MOSs 0231 and 0431) for which it was necessary to extract all zone A decisions from the 225,000-decision database before estimation could be done. The results for the individual MOSs confirm the findings reported in table 3 for the aggregate model, although there are clearly some differences by MOS.

The Relationships Between Reenlistments, Pay, and Unemployment

Higher levels of military pay relative to civilian pay or of the civilian unemployment rate increase Marine Corps enlistments. An increase of 1 percentage point in either of these variables is associated, on average, with an increase of about 0.6 percentage point on the overall reenlistment rate. While table 3 reports these derivatives, the effects can also be reported as elasticities. In fact, the effect of pay on reenlistments is frequently reported as a reenlistment elasticity. The elasticity is the percentage change in the reenlistment rate that can be expected from a 1-percent change in the pay index. (Note that elasticities are not percentage points.) The pay elasticity derived from the estimates in table 3 is 2.1, meaning that a 1-percent increase in the pay index is associated with a 2.1-percent increase in the reenlistment rate; similarly, a 1-percent decrease in the pay index would, other things equal, be associated with a 2.1-percent decrease in the reenlistment rate. This responsiveness of Marine Corps reenlistments to changes in the ratio of military-to-civilian pay is well in line with those reported in other studies (see [1] for a good summary of earlier work).²

The average value for the 20- to 24-year-old male unemployment rate over the time period is .116 (or, as it is usually reported, an

1. The derivatives should be understood as the estimated change in the reenlistment rate for a small change in the indicator variable. For example, the estimated grade effects are all relative to the omitted grade of lance corporal. The derivative for the variable corporal is .141. Incrementing the variable corporal by .10 (effectively enriching the grade structure of the population making reenlistment decisions by increasing the number of corporals and decreasing the number of lance corporals) is estimated to change the average reenlistment rate by .014 (from .324 to .338).

2. These elasticities are calculated at the average reenlistment rate of .32 and at the average value of the pay index of 1.17. For example, a 1-percent increase in pay would raise the pay index to 1.18 (1.17 times 1.01) and would be associated with an increase in the reenlistment rate to .33 (1.021 times .32).

11.6 percent unemployment rate).¹ The reported derivative is .571, suggesting that an increase in the unemployment rate from .116 to .126 would be associated with an increase in the average reenlistment rate of a little over half a percentage point. This effect should be evaluated in terms of what are common percentage changes in the unemployment rate for 20- to 24-year-old males (see figure 5). Young male unemployment rates are quite volatile. During the period of this analysis, the rate varied from 7.5 to 18.0--an 11.5-percentage-point range.

SRB Estimates: Differential Effects for AFQT12 Category Marines

SRB bonuses have been very effective in targeting Marine Corps reenlistments. Table 3 showed an average impact of over 6 percentage points in the reenlistment rate for an increase of one in the bonus level.² These bonuses, however, have had an additional impact on the reenlistment decisions of Marines who scored in categories I and II on the AFQT. On average, the additional impact of having an SRB (versus no SRB) for an AFQT12 Marine is an increase of 3 percentage points in the reenlistment rate. That these bonuses additionally affect on the reenlistment decision of these Marines is probably not surprising, since these Marines, on average, are probably offered better opportunities in the civilian sector than are Marines with lower AFQT scores.

Table 4 shows reenlistment rates predicted by the logit equations. These predicted reenlistment rates are for Marines who were average in all characteristics (except AFQT category and the bonus level).³ The predictions show reenlistment rates for AFQT12 Marines with no SRB to be about 4 percentage points lower than the reenlistment rates for other Marines with no SRB. Thus, table 4 shows predicted reenlistment rates for Marines without an SRB of .18 for AFQT12 scorers and .22 for other Marines (AFQT3A-4 scorers). When there is an SRB, differences in the predicted reenlistment rates narrow to 1 percentage point. In brief, the average additional reenlistment impact of the bonus is larger for Marines who score higher on the AFQT.

Table 4 also illustrates the predictions for MOS 0231, Intelligence Specialist. Almost half of the Marines in MOS 0231 making reenlistment decisions in FY 1980 through FY 1990 tested in AFQT category I or II.⁴

1. It is easier to get maximum likelihood techniques to converge if the explanatory variables are all of about the same order of magnitude. Thus, the unemployment rate was divided by 100 ($11.6/100=.116$).

2. The derivative for the SRB-multiple variable (called SRB_LEV) is 0.066.

3. The average bonus level for all reenlistment decisions between FY 1980 and June 1990 was 1.1. The average level for Marines in MOSs that offered an SRB was 2.5.

4. To obtain sufficient numbers of observations for this MOS, all Marines making Zone A reenlistment decisions in this MOS were analyzed (453 Marines).

In this period, SRB levels were 0, 1, 3, 4, and 5. For this MOS, the impact of differential impact of SRBs for AFQT category I and II Marines is much stronger than it is for the entire Marine Corps. Predicted reenlistment rates differ by over 20 percentage points without an SRB, but narrow to only 1 percentage point with positive bonus levels.

**Table 4. Reenlistment rates predicted by logit equations:
The effect of SRBs**

		SRB level						
		None	1	2	3	4	5	6 ^a
All observations ^b								
	AFQT12	.18	.28	.35	.40	.48	.50	.60
	AFQT IIIA-IV	.22	.29	.36	.41	.49	.51	.61
MOS 0231 ^a								
	AFQT12	.21	.65	b	.62	.58	.78	--
	AFQT IIIA-IV	.44	.64	b	.61	.57	.77	--

- a. No level-six bonuses have been offered by the Marine Corps since 1983, and there were no level-two or level-six SRB levels in MOS 0231 between FY 1980 and FY 1990.
- b. Reenlistment rate predictions hold all characteristics not identified in the table at their average values. The estimates for all observations come from the logit detailed in table E-1 (first column). The logit for Intelligence Specialist (MOS 0231) is detailed in table F-1 (first column).

Predicted Reenlistment Rates by Marital and Dependency Status

Marital and dependency statuses were entered in logit equations with various definitions (the other explanatory variables were identical to those shown in table 3, specification 2). From these estimates, predicted reenlistment probabilities were calculated by grade and marital status. These probabilities, illustrated in table 5, are for Marines who are average in all characteristics except marital status and grade (which are varied in the table). The resulting predicted reenlistment probabilities by marital and dependency statuses reinforce the tabulations by marital/dependency statuses reported earlier in table 2. For example, corporals, average in all characteristics except marital status, are predicted to reenlist at the rate of 26 percent if they are single, at a rate of 43 percent if they are married or have dependents, and at rate of 47 percent if they have two or more dependents.

Table 5. Reenlistment rates predicted from logit equations: The effect of marital/dependency status

	Grade ^a		
	LCpl	Cpl	Sgt
Average in all characteristics except			
Single	0.15	0.26	0.32
Married	0.28	0.43	0.51
Married or with dependents	0.28	0.43	0.51
Single with dependents	0.29	0.44	0.52
Any marital status; with two or more dependents	0.32	0.47	0.55

a. The number of E6s was not sufficient (less than 50) for prediction.

DECISIONS IN FY 1988 THROUGH FY 1990

Having reenlistment information for over a decade permits fairly precise estimates of the average effect of changes in the SRB level, the civilian unemployment rate, the pay index, and so forth.¹ Still, to the extent it is possible to isolate any recent deviation in reenlistment behavior from the average behavior over the last decade, it is important to do so. Thus, this section will examine recent patterns, attempting to identify any deviations from average behavior observed during the past decade.

Table 6 details the number and characteristics of recommended and eligible Marines making recent zone A reenlistment decisions. While table 2 presented similar tabulations for a *sample* of decisions from FY 1980 through June 1990, the tabulations in table 6 include *all* zone A FY 1988 through FY 1990 reenlistment decisions for Marines whose initial enlistment contracts were four, five, or six years.² Generally, the

1. Indeed, time periods of one or two years do not provide sufficient variation in some variables--particularly the pay index and the civilian unemployment rate--to permit any estimation of their effects.

2. A small number of records contained implausible data for some of the variables; these records were not included.

relationships among characteristics of Marines and reenlistment propensities in FY 1988 through FY 1990 appear similar to those discussed for the sample of decisions over the last decade.¹

Table 6, however, contains some new information. These are the first years that any sizable number of Marines with five- or six-year contracts are making decisions. Marines with five- or six-year initial enlistment contracts will constitute about one-quarter of FY 1991 and following fiscal years' zone A populations, and it is important to obtain early estimates of any differences in their reenlistment patterns. Table 6 shows substantially higher reenlistment rates for Marines with longer initial contracts.

Additionally, there appears to have been a recent increase in the propensity of high AFQT-scoring Marines to reenlist. FY 1988 illustrates the traditional pattern observed over the decade of the 1980s (slightly lower than average reenlistment rates for AFQT12 scoring Marines (21.0 versus 25.2 percent)). In both 1989 and 1990, however, the reenlistment rates of both AFQT12 and AFQT13A Marines is higher than the overall reenlistment rate. In 1990, for example, the overall reenlistment rate was 24.9 percent, and the reenlistment rate for AFQT12 Marines was 25.7 percent.

Since the first-term attrition rates of Marines who score high on the AFQT is lower than the average attrition rate, these Marines are more likely than average to complete the enlistment term and be part of the population making a reenlistment decision. If, additionally, they continue to reenlist at a higher than average rate, then the proportion of AFQT12 Marines in the second-term will be larger than it was for the original accession cohort. Accession quality is thus of critical importance, shaping the future quality of the career force as well as the quality of the first-term force.

Estimating Reenlistments in FY 1988 Through FY 1990

Table 7 details the reenlistment estimates for the FY 1988 through FY 1990 period. No estimates were made for the current impact of the pay index or the civilian unemployment rate because of insufficient variation in these variables over this short period.

1. The decision to include a separate analysis of recent reenlistment decision was made after the main analytic work was completed. Recent SRB messages have predicated SRB eligibility sometimes on both PMOS and additional MOS (AMOS). Because the basic data were drawn from the ARSTAT file and because this file contains no information on AMOS, the information in table 6 on the number of Marines who were offered SRBs is incomplete. In particular, the table misses Marines who were offered an SRB because of their AMOS. Future work will have to match records to other files to obtain information on each Marine's AMOS.

Table 6. Reenlistment rates, by characteristics of recommended and eligible Marines making Zone A reenlistment decisions in FY 1988, FY 1989, and FY 1990

Variables	FY 1988		FY 1989		FY 1990	
	Number	Reen. rate	Number	Reen. rate	Number	Reen. rate
Overall	19,255	25.2	16,235	27.6	15,352	24.9
SRB offered						
No SRB	8,875	14.3	8,628	25.0	13,453	21.7
SRB level one	848	32.4	3,473	22.8	390	33.6
SRB level two	4,508	28.2	1,000	33.8	223	39.5
SRB level three	1,190	36.3	1,075	34.0	274	46.0
SRB level four	3,514	41.0	1,986	40.7	722	54.2
SRB level five	320	52.8	73	27.4	290	56.9
Grade						
E3	5,992	23.9	3,565	20.1	3,326	21.7
E4	11,968	25.4	11,484	28.4	10,691	24.8
E5/6	1,121	34.7	1,058	47.5	1,192	44.7
Length initial contract						
Four years	19,117	25.1	15,760	26.7	14,220	23.5
Five years	2	--	43	69.8	156	36.5
Six years	134	41.8	432	56.3	976	43.6
Marital/dependency status						
Not married, no dependents	11,659	20.2	9,403	20.8	8,769	18.7
Not married, with dependents	504	32.5	482	37.8	472	31.4
Married	7,092	33.1	6,350	36.8	6,111	33.3
Either married or with dependents	7,596	33.0	6,832	36.9	6,583	33.2
Two or more dependents	2,476	35.9	2,615	38.9	2,583	36.6
Other individual background characteristics						
Male	18,422	24.8	15,502	27.2	14,644	24.3
Female	833	35.9	733	35.2	708	36.2
Black	3,192	43.0	2,907	42.7	2,601	38.4
Hispanic	968	24.7	830	31.7	994	23.3
Not black or hispanic	15,095	21.5	12,499	23.8	11,757	22.0
HSDG	17,344	25.2	14,764	27.6	14,227	24.9
CERT	1,723	26.3	1,329	29.0	1,024	26.0
Non-HSDG	188	17.0	142	13.4	101	14.9
AFQT 12	6,270	21.0	4,964	27.8	5,548	25.7
AFQT 13A	10,626	22.4	8,644	27.0	9,310	25.2

Table 7. Logit coefficients and derivatives for reenlistment decisions, FY 1988 through FY 1990

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
SRB_LEV	1.04	.318** (42.3)	.063	.328** (43.89)	.064
HSDG	.911	.001 (.04)	.000	.010 (.27)	.002
AFQT12	.320	-.140** (-5.50)	-.028	-.072** (-2.87)	-.014
Cpl	.658	.353** (13.64)	.069	No	--
Sgt/SSgt	.079	.996** (21.87)	.196	No	--
Married or dependents	.419	.711** (33.79)	.140	.731** (34.93)	.144
Five-year obligor	.004	.788** (5.09)	.155	.860** (5.65)	.169
Six-year obligor	.030	.303** (4.77)	.060	.752** (13.09)	.148
Prior extension ^a	.040	.407** (8.10)	.080	.612** (12.49)	.120
Male	.955	-.021 (-.45)	-.004	-.050 (-1.06)	-.010
Black	.176	.903** (34.19)	.177	.866** (33.04)	.170
Hispanic	.055	.207** (4.53)	.041	.199** (4.38)	.039
Number of observations ^b		53,919		53,919	
Chi-square		6,996.4		6,498.4	

Table 7. (Continued)

NOTE: (1) Number in parentheses beneath coefficients are t-statistics.
(2) ** Statistical significance at the 1-percent level.

(3) Logit equations also contained fiscal year indicator, missing AFQT score indicator, and MOS category variables.

- a. All extensions before the reenlistment decision were made by Marines with initial obligations of four years.
 - b. This data set contains all zone A decisions for Marines with initial obligations of four, five, or six years. A small number of observations with missing or implausible data were dropped from the analysis.
-

The strong reenlistment incentives provided by SRB bonus multiples are again shown in table 7. Estimated derivatives show that each unit increment in the bonus level is associated with an increase in the reenlistment rate of about 6 percentage points.

The next two variables (HSDG and AFQT12) showed statistically significant negative impacts--other things equal--on reenlistment probabilities in the 1980s; the magnitudes were about 3 and 5 percentage points, respectively (see table 3). Holding "everything else equal," however, is probably not particularly meaningful for these particular characteristics.¹ For example, Marines who are high test scorers are more likely to be in higher grades and in longer enlistment contracts, characteristics that are both associated with higher reenlistment propensities. Table 2, in fact, showed average reenlistment rates over the decade of the 1980s of 30.5 percent for AFQT12 Marines and 31.1 for HSDG Marines (versus 32.4 percent for the overall sample). These differences in average reenlistment rates are considerably smaller than the differences "everything else equal."

Data in table 6 showed that in FY 1989 and FY 1990 the reenlistment rate of AFQT12 Marines was actually slightly higher than average. The estimation results in table 7 for these recent reenlistment decisions show the variable HSDG is no longer statistically significant. The impact of the AFQT12 variable, although still statistically significant, is smaller than it was in an earlier period. Thus, holding all other characteristics constant, Marines scoring in categories I and II of the AFQT are still somewhat less likely to reenlist than lower scoring Marines. Given the average characteristics of AFQT12 Marines, however,

1. For example, holding all other variables constant (other things equal) looks at the effect of AFQT12 Marines within grade, length of initial contract, etc.

AFQT12 Marines are now slightly more likely to reenlist than are Marines scoring lower on the AFQT.

Marines who are married or who have dependents are also still considerably more likely to reenlist than are single Marines without dependents.¹ In the current period it is not nearly as common to execute an extension before the final decision to reenlist or to separate from the Marine Corps. Those who do first execute an extension, however, still seem to be signaling more positive reenlistment propensities than those who have not yet made any decision.

Both specifications in table 7 include indicator variables for five- and six-year initial obligations; the two specifications in the table differ because the second specification excludes separate variables for grade (longer initial obligations imply a higher grade at the decision point.) Considering the grade at which Marines make their decision (the first specification), five-year obligors are considerably more likely, and six-year obligors more likely, to reenlist than four-year obligors. When grade is omitted (the second specification) and the initial enlistment length (as well as the other variables in the equation that predict grade--AFQT category, MOS group, etc.) is allowed to proxy the effects of grade, both five- and six-year obligors are considerably more likely to reenlist than are Marines with initial obligations of four years.²

Overall, the Marine Corps should expect that these longer obligations increase the probabilities of reenlistment. These longer initial enlistments also increase the probability that zone A reenlisters will be married³ and in higher grades when they make their reenlistment decision.

Table 8 provides additional information about FY 1989 and FY 1990 decisions for Marines of different initial contract lengths. For this period, there are large differences in reenlistment rates by length of initial contract. There are also sharp differences in the proportion married. Most of this difference in the marriage rate at the reenlistment point is due to age differences (for example, six-year personnel were 25.6 years of age at the decision point, while four-year personnel

1. The specifications in table 7 identify these effects by the variable "married or dependents." Other logit equations, not reproduced in the paper, used all the variable definitions reported in table 5. Results for the current period are virtually identical to those found for the entire decade.

2. Both the five- and six-year obligor variables need to be interpreted in relation to the omitted group, four-year obligors.

3. Forthcoming work will attempt to examine all dimensions of initial enlistment contract lengths--recruitment and training costs, first-term attrition, reenlistment behavior, etc.

Table 8. First-term recommended and eligible population: statistics, by length of initial contract for FY 1989 and FY 1990

	FY 1990			FY 1989		
	4-year	5-year	6-year	5- and 6-year	4-year	5-year 6-year
Reenlistment percent	23.5	36.5	43.6	42.6	26.7	69.8 56.3 57.5
Percent of recommended and eligible population that were						
Married	38.5	49.4	56.9	55.8	38.5	60.5 57.9 58.1
Rank						
LCpl	23.4	13.5	1.9	3.4	22.8	-- 1.4 1.3
Cpl	73.6	71.0	21.9	28.7	72.6	79.1 22.7 27.8
Sgt	3.0	14.5	76.2	67.9	4.6	20.9 75.9 70.9
AFQT category I-II	32.4	48.1	89.5	71.1	29.0	41.9 88.9 84.6
AFQT category I-III A	58.0	69.2	97.5	79.6	52.1	58.1 96.1 92.6
Number of Marines ^a	14,220	156	976	1,332	15,633	43 432 474

a. Includes all recommended and eligible Zone A decisions for Marines with initial contracts of four, five, and six years. In FY 1990, five Marines (in FY 1989, six Marines) made their reenlistment decisions at the grade of SSgt; they were grouped with Sgts in the table.

were 23.6 years); since a six-year contract is two years longer than a four-year contract, these age differences (and thus the differences in the marriage rate) can be expected to persist.

The current sharp differences in grade at the first reenlistment point (the majority of four-year obligors are corporals, and the majority of six-year obligors are sergeants) probably will be reduced in the future because of changes in Marine Corps promotion policy. Since grade is such an important determinant of reenlistment probability, a reduction in the 20-percentage point difference in reenlistment rates for Marines with four-year versus five- or six-year initial contracts should be anticipated.

Finally, table 8 shows sharp differences between Marines with different obligation lengths in the proportion who test in AFQT categories I and II. Since AFQT scores are known at accession, future differences in AFQT scores at the first-term reenlistment point can be estimated with reasonable precision.¹ An examination of AFQT category and contract length for accessions since FY 1985 shows that there will continue to be large differences in the proportion of AFQT category I and II Marines represented in the different contract length populations. However, the differences will not be quite as dramatic as those shown in table 8.

OUT-YEAR VERSUS IN-YEAR REENLISTMENTS

Two separate analyses were undertaken to examine possible differences in responses for out-year versus in-year reenlistments. The first analysis restricted the sample to reenlistments and estimated the probability that the reenlistment would be out-year. Thus, this analysis examines the *timing* of reenlistments. The second analysis dropped any out-year reenlisters from the data set and estimated the probability of reenlistment (reenlist within fiscal year or separate). The analyses were restricted to FY 1989 decisions, because historical information on policies regarding early reenlistment was not available.² Appendix G contains these estimates.

The basic findings for the first analysis are that Marines with longer initial contracts and high AFQT scores are more likely to be out-year reenlisters than in-year reenlisters. Higher SRB levels induce

1. They cannot be estimated exactly because the recommended and eligible population at the reenlistment point is a subset of the accession population four to six years earlier.

2. FY 1990 decisions were not analyzed because they may have been affected by Operation Desert Shield, which began on 8 August 1990. Since out-year reenlistments are more likely at the end of the fiscal year, any change in behavior because of the operation could skew the relationships among out-year versus in-year reenlistments for FY 1990.

out-year reenlistments. Additionally, proportionally fewer of the reenlistments for black Marines are out-year than for the other racial/ethnic groups. For other characteristics, in FY 1989 at least, Marines appear to reenlist in roughly the same mix of out-year and in-year reenlistments as is average for the Corps.¹

The second analysis omitted out-year reenlistments, estimating for FY 1989 decisions the probability of an in-year reenlistment (versus a separation). This examination shows that the reenlistment inducements provided by SRBs are much smaller for in-year reenlistments than they are for all reenlistments. These findings suggest considerable caution in utilizing estimates for SRBs derived from all reenlistments to predict the impact of SRBs on in-year reenlistments. Higher SRB levels are considerably more powerful in buying the Marine Corps additional out-year reenlistments than they are for buying additional in-year reenlistments. If planners are required to predict in-year reenlistments accurately, additional work on modeling in-year reenlistments may be warranted. In particular, other things equal, if there are large numbers of out-year reenlistments in one particular year, the number of in-year reenlistments the next year will be smaller. In brief, future work should explicitly address how the number of out-year reenlistments last year affects the number of in-year reenlistments this year.

SUMMARY AND CONCLUSIONS

This paper has analyzed Zone A reenlistment decisions by "recommended and eligible" Marines in the 1980s. During the decade, the characteristics of Marines making this reenlistment decision have changed substantially. In particular, recommended and eligible Marines currently making the decision are more likely to be (1) higher test scorers and better educated, (2) married or with dependents, (3) at a lower grade, and (4) finishing longer initial contracts than were comparable Marines in the early 1980s. One important objective of this study was to quantify differences in reenlistment behavior related to these differences in characteristics.

Reenlistment probability was estimated as a function of the SRB bonus multiple, grade, background characteristics, the length of the initial contract, whether or not an extension was executed immediately before the decision, the MOS group, a civilian-to-military pay index, and the civilian unemployment rate. The estimating equations fit the data extremely well, and coefficient estimates achieved high levels of statistical significance.

1. The patterns of out-year reenlistments by grade are quite complex. First, early reenlisters, holding initial contract length constant, have been in the Marine Corps a shorter period of time when they reenlist. Second, Marines with longer initial enlistment contracts are more likely to reenlist out-year.

Overall, the results suggest that higher SRBs, higher grade, and longer initial enlistments are associated with higher reenlistment rates. Additionally, females, blacks, and married individuals are more likely to reenlist than other groups. Higher SRB levels appear to affect both the quantity and the quality of reenlistments as higher SRB levels appear particularly attractive to high quality Marines, thereby inducing disproportionate numbers of reenlistments from this group.

In each year of the 1980s, reenlistment rates were sharply delineated by grade, with the lowest rates for lance corporals and the highest rates for sergeants/staff sergeants. Over the decade, however, as promotion rates slowed, there were some changes in the reenlistment rates by grade. Although the reenlistment rates by grade increased for all grades, the increase in the lance corporal reenlistment rate was the largest. Presumably, making the reenlistment decision at the grade of lance corporal at the end of the decade had a more positive connotation about a successful first term of service than it had had at the beginning of the decade.

The relationship between AFQT score categories at accession and after the first reenlistment is a subject of considerable interest. The 1980s saw substantial increases in the proportion of Marine Corps accessions with high AFQT scores. These Marines with high test scores have lower first-term attrition and are thus more likely to be in the population of recommended and eligible Marines making reenlistment decisions. While most of the decade saw slightly lower than average reenlistment rates among AFQT category I-II Marines, the reenlistment rates in FY 1989 and FY 1990 of these Marines with very high test scores was higher than average. The last big increase in accession quality was in FY 1986, and it is these Marines that are now making reenlistment decisions. It appears that the Marine Corps investments in improving accession quality are paying off in higher retention as well as in better performance and lower first-term attrition.

While the Marine Corps can use its SRB budget to channel reenlistments to required personnel, it has considerably less ability to manipulate the relationship of military to civilian pay or the civilian unemployment rate. Yet, both of these factors have played important roles in the reenlistment equation, particularly in the early 1980s. A 1-percentage point increase in the CNA-constructed pay index for first-term personnel was associated with a 0.6-percentage point increase in the reenlistment rate. Similarly, a 1-percentage point increase in the 20- to 24-year-old male unemployment rate (a fairly small historical change) was associated with a 0.6-percentage point increase in the Marine Corps reenlistment rate.

Further analysis partitioned reenlistment decisions into those made before the fiscal year of contract expiration (out-year reenlistments) and those made in-year. It is especially important that Marine Corps planners project in-year reenlistments accurately, as these in-year

reenlistments directly affect year-end strength. Findings suggest that in-year reenlistments are not quite as responsive to SRBs as are out-year reenlistments. Additional work on the determinants of in-year reenlistments may be warranted.

Finally, during the course of the study, a permanent longitudinal decision database was constructed. Additionally, computer programs to extract desired decisions were finalized. Thus, future retention analyses can extract decisions, and the background information on Marines making these decisions, in a time frame that lags real-time decisions by only about three months.

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- [11] CNA Report 138, *The Retention Effects of Selective Reenlistment Bonuses in the United States Marine Corps*, by Donald J. Cymrot, Aug 1987
- [12] Department of Defense, Office of the Secretary of Defense, *Military Compensation Background Papers: Compensation Elements and their Related Manpower Costs*, 3rd ed. Chapter II, p. 35, Jun 1987
- [13] United States Department of Labor, Bureau of Labor Statistics, *News: Weekly Earnings of Wage and Salary Workers*, published quarterly, various issues

APPENDIX A

VARIABLES ON THE RETENTION DATABASE

APPENDIX A

VARIABLES ON THE RETENTION DATABASE

This appendix describes the variables on the retention database in more detail than is provided in the main text.

Figure A-1 illustrates the process by which the data were prepared. To facilitate future analysis, the data were prepared generically; only on the final computer programs are the data restricted to zone A decisions. There are three computer programs (shown as rectangles on the figure). In turn, these programs

- Append correctly normed AFQT scores to the data
- Construct a retention database organized around decisions (reenlistments, effective extensions, and separations)
- Extract records for zone A decisions of reenlistments, extensions of one year or longer, and separations of Marines recommended and eligible for reenlistment, and append additional information to the record.

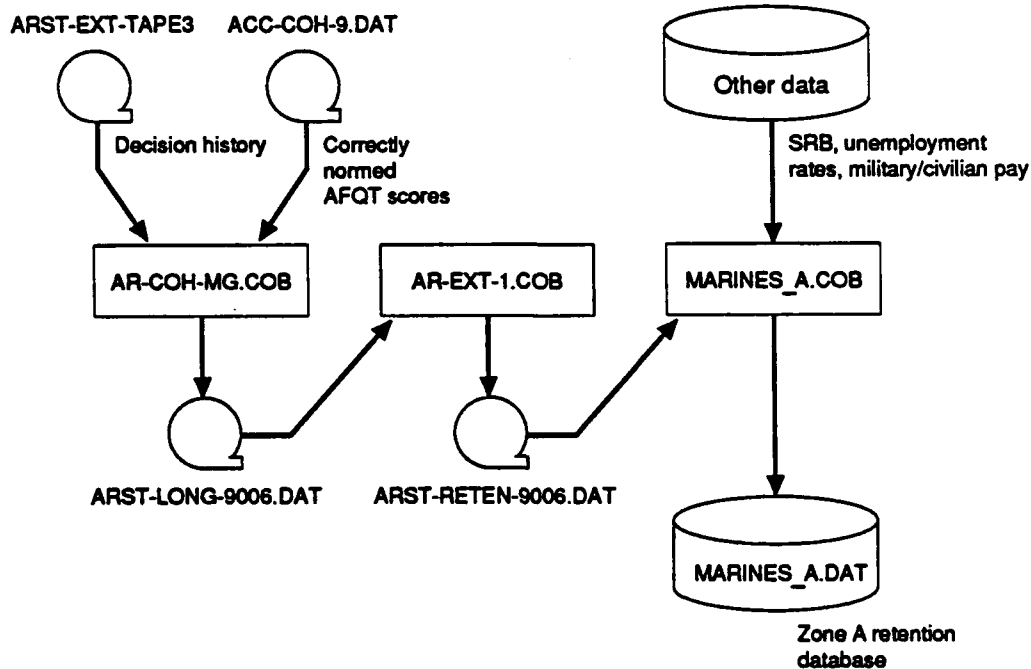


Figure A-1. Flow diagram describing construction of zone A retention database

The first step was to append correctly calibrated AFQT scores to the ARSTAT longitudinal tracking file because the AFQT score recorded on the Marine's personnel records may be misnormed.¹ Previous work had derived accurate AFQT categories for accessions since FY 1978, and thus the first step was to match this accession cohort file to the longitudinal ARSTAT Tracking file and append correctly normed AFQT score categories to the longitudinal histories. (The resulting data set is called ARST-LONG-9006.DAT on figure A-1.)²

The next step was the construction of a retention database (called ARST-RETEN-9006.DAT and stored on computer tape). This database integrates historical information from the individuals' ARSTAT longitudinal history to a reenlistment, extension, or leave decision. This database will be permanently maintained by CNA and should form the basis for future retention analysis.

A particular Marine may have more than one record in this database, since each observation is a decision. For each decision, the following information is either extracted or constructed from the individual's ARSTAT longitudinal record:

- Background

- SSN
- Gender
- Race/ethnic background
- AFQT score category
- Education (years and category)
- Armed Forces Active Duty Base Date

1. There have been several problems historically with incorrectly calibrated AFQT scores. CNA has done extensive work with AFQT norming and has developed algorithms to place individuals in the correct AFQT categories. (See conversion tables in Department of Defense, DOD 1304.12WI, *Conversion Tables Armed Services Vocational Aptitude Battery*, Jan 1989.) Considerable information is required to calculate accurate scores (the test date, the ASVAB battery, raw scores, etc.) and for accessions before the late 1970s, and it is generally not possible to calculate accurate scores.

2. For accessions before FY 1978, and for some accessions since FY 1978 with incomplete information, correctly normed AFQT score categories are missing. Rather than use inaccurate scores, the analysis will explicitly recognize the missing information and statistically control for it.

- Information at decision point

- Decision type (reenlistment; extension; separation, eligible at EAS; separation, ineligible at EAS; separation, eligible and not at EAS; separation, ineligible and not at EAS; broken reenlistment)
- Component code
- Age
- Marital and dependent statuses
- MCC and RUC
- PMOS
- Present grade
- Time spent in present grade
- Decision date
- Months of service at decision
- Number of extensions immediately before reenlistment, extension, or separation
- Length of all extensions before this contract
- Length of prior enlistment contract
- End of active service (EAS) date on prior contract
- Months between EAS on prior contract and decision date
- Flag if decision fiscal year is before the fiscal year of the EAS for the prior contract
- For broken reenlistment, number of months between separation and reentry

- Characteristics of decision

- Length of reenlistment or extension
- Separation designator number (SDN) for separation

- Longitudinal history of grade changes

- Months to promotion (E2-E3, E3-E4, E4-E5, E5-E6)
- Demotions total
- Number of demotions in the 12 months before the particular decision.

The final step was to extract zone A decisions (to reenlist, to extend for at least one year, or to separate with a status of recommended and eligible for reenlistment) from the retention database. Additionally, this computer program appended information that characterized the environment at the time the Marine made the reenlistment decision--the level of the Selective Reenlistment Bonus (SRB) for the Marine's PMOS at the decision, the civilian unemployment rate for 20- to 24-year-old males, and an index of military-to-civilian pay. Because CNA has been unable to locate information on SRB bonus multiples for either FY 1978 or FY 1979, the Zone A reenlistment database begins in FY 1980.

APPENDIX B

PRIMARY MILITARY OCCUPATIONAL SPECIALTY CODES

APPENDIX B

PRIMARY MILITARY OCCUPATIONAL SPECIALTY CODES

This appendix provides two tables. Table B-1 is the grouping of PMOSs into the categories used in the logit retention equations. Table B-2 is a listing, by PMOS, of the numbers of decisions for the random sample in the FY 1980 through June 1990 period (26,840 decisions).

Table B-1. PMOS categories

INFANTRY		AIRMAN (Air Mechanical Fixed-wing)	
0300 BASIC INFANTRY MAN		0000 BASIC AIRCRAFT MAINTENANCE MARINE	
0311 RIFLEMAN		0011 AIRCRAFT MECHANIC—TRAINEE	
0313 LAV CREWMAN		0012 AIRCRAFT MECHANIC A-4/TA-4/OA-4	
0321 RECONNAISSANCE MAN		0013 AIRCRAFT MECHANIC A-6/EA-6	
0331 MACHINEGUNNER		0014 AIRCRAFT MECHANIC F-4/RF-4	
0332 GUNNER HEAVY MACHINEGUN		0015 AIRCRAFT MECHANIC AV-8/TA-8	
0341 MORTARMAN		0016 AIRCRAFT MECHANIC KC-130	
0351 ASSAULTMAN		0017 AIRCRAFT MECHANIC F/A-18	
0352 ANTITANK ASSAULT GUIDED MISSILEMAN		0018 AIRCRAFT MECHANIC OV-10	
0369 INFANTRY UNIT LEADER		0019 AIRCRAFT MAINTENANCE CHIEF	
0800 BASIC FIELD ARTILLERY MAN		0022 AIRCRAFT POWER PLANTS MECHANIC J-52	
0811 FIELD ARTILLERY CANNONER		0023 AIRCRAFT POWER PLANTS MECHANIC I-76	
0812 FIELD ARTILLERY NUCLEAR PROJECTILEMAN		0024 AIRCRAFT POWER PLANTS MECHANIC J-70	
0842 FIELD ARTILLERY RADAR OPERATOR		0025 AIRCRAFT POWER PLANTS MECHANIC ROLLS ROYCE PEGASUS	
0844 FIELD ARTILLERY FIRE CONTROL MAN		0026 AIRCRAFT POWER PLANTS MECHANIC T-56	
0847 ARTILLERY METEOROLOGICAL MAN		0027 AIRCRAFT POWER PLANTS MECHANIC F-404	
0848 FIELD ARTILLERY OPERATIONS MAN		0031 AIRCRAFT FLIGHT ENGINEER KC-130 TRAINEE	
0861 FIRE SUPPORT MAN		0032 AIRCRAFT FLIGHT ENGINEER KC-130	
1800 BASIC TANK AND ASSAULT AMPHIBIAN CREWMAN		0035 AIRCRAFT POWER PLANT TEST CELL OPER FWD WING	
1811 M60A1 TANK CREWMAN		0043 AIRCRAFT WELDER	
1812 M1A1 TANK CREWMAN		0044 AIRCRAFT NON-DESTRUCTIVE INSPECTION TECH	
1833 ASSAULT AMPHIBIAN CREWMAN		0046 AIRCRAFT MAINTENANCE ADMIN CLERK	
9952 SCUBA MARINE (OFFICER/ENLISTED) (OFF:2E)		0047 AIRCRAFT MAINTENANCE DATA ANALYSIS TECH	
9953 PARACHUTIST/SCUBA MARINE (OFFICER:2E/ENLISTED)		0051 AIRCRAFT HYDRAULIC/PNEUMATIC MECH-TRAINEE	
9956 GROUND SAFETY SPECIALIST (OFFICER:4J/ENLISTED)		0052 AIRCRAFT HYDRAULIC/PNEUMATIC MECH 4-A/TA-4/OA-4	
		0053 AIRCRAFT HYDRAULIC/PNEUMATIC MECH A-6/EA-6	
		0054 AIRCRAFT HYDRAULIC/PNEUMATIC MECH F-4/RF-4	
		0055 AIRCRAFT HYDRAULIC/PNEUMATIC MECH AV-8/TA-8	
		0056 AIRCRAFT HYDRAULIC/PNEUMATIC MECH KC-130	
AIRMAN (Air Mechanical helos)			
6111 HELICOPTER MECHANIC—TRAINEE		6057 AIRCRAFT HYDRAULIC/PNEUMATIC MECH F/A-18	
6112 HELICOPTER MECHANIC CH-46		6058 AIRCRAFT HYDRAULIC/PNEUMATIC MECH OV-10	
6113 HELICOPTER MECHANIC CH-53		6059 AIRCRAFT AIRFRAMES MAINT CHIEF	
6114 HELICOPTER MECHANIC U/AH-1		6060 FLIGHT EQUIP MARINE	
6115 HELICOPTER MECHANIC CH-53E		6071 AIRCRAFT MAINT GRND SUPT EQUIP MECHN TRNEE	
6119 HELICOPTER MAINTENANCE CHIEF		6072 AIRCRAFT MAINT GSE/HYDRAULIC/PNEUMATIC/STRUCT/MECHANIC	
6122 HELICOPTER POWER PLANTS MECHANIC T-50		6073 AIRCRAFT MAINT GSE ELECT/REFRIGERATION MECHANIC	
6123 HELICOPTER POWER PLANTS MECHANIC T-64		6075 CRYOGENICS EQUIP OPERATOR	
6125 HELICOPTER POWER PLANTS MECHANIC T-400		6081 AIRCRAFT SAFETY EQUIP MECHANIC—TRAINEE	
6132 HELICOPTER DYNAMIC COMPONENTS MECHANIC		6082 AIRCRAFT SAFETY EQUIP MECHANIC A-4/TA-4/OA-4	
6135 AIRCRAFT POWER PLANT TEST CELL OPER ROTARY WING		6083 AIRCRAFT SAFETY EQUIP MECHANIC A-6/EA-6	
6142 HELICOPTER STRUCTURES MECHANIC CH-46		6084 AIRCRAFT SAFETY EQUIP MECHANIC F-4/RF-4	
6143 HELICOPTER STRUCTURES MECHANIC CH-53		6085 AIRCRAFT SAFETY EQUIP MECHANIC AV-8/TA-8	
6144 HELICOPTER STRUCTURES MECHANIC U/AH-1		6086 AIRCRAFT SAFETY EQUIP MECHANIC KC-130	
6152 HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC CH-46		6087 AIRCRAFT SAFETY EQUIP MECHANIC F/A-18	
6153 HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC CH-53		6088 AIRCRAFT SAFETY EQUIP MECHANIC OV-10	
6154 HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC U/AH-1		6090 AIRCRAFT SAFETY EQUIP CHIEF	
6155 HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC CH-53E		6091 AIRCRAFT STRUCTURES MECHANIC—TRAINEE	
6159 HELICOPTER AIRFRAMES MAINT CHIEF		6092 AIRCRAFT STRUCTURES MECHANIC A-4/TA-4/OA-4	
6162 PRESIDENTIAL SUPPORT SPECIALIST		6093 AIRCRAFT STRUCTURES MECHANIC A-6/EA-6	
6173 HELICOPTER CREW CHIEF CH-46		6094 AIRCRAFT STRUCTURES MECHANIC F-4/RF-4	
6174 HELICOPTER CREW CHIEF CH-53 A/D		6095 AIRCRAFT STRUCTURES MECHANIC AV-8/TA-8	
6175 HELICOPTER CREW CHIEF UH-1H		6096 AIRCRAFT STRUCTURES MECHANIC KC-130	
6176 HELICOPTER CREW CHIEF V-22		6097 AIRCRAFT STRUCTURES MECHANIC F/A-18	
		6098 AIRCRAFT STRUCTURES MECHANIC OV-10	

Table B-1. (Continued)

AIRTECH		
6300	BASIC AVIONICS MARINE	
6311	AIRCRAFT COM/NAV/ELEC/WEAP/SYS/TECH-IRNE OMA	
6312	AIRCRAFT COM/NAV/SYS TECH A-4/TA-4/OA-4	
6313	AIRCRAFT COM/NAV/RADAR SYS TECH A-6/EA-6A	
6314	AIRCRAFT COM/NAV/SYS TECH RF-4/F4	
6315	AIRCRAFT COM/NAV/SYS TECH AV-8	
6316	AIRCRAFT COM/NAV/SYS TECH KC-130	
6317	AIRCRAFT COM/NAV/WEAP/SYS/TECH F/A-18	
6318	AIRCRAFT COM/NAV/ELEC/WEAP/SYS/TECH OV-10	
6322	AIRCRAFT COM/NAV/ELEC/SYS TECH CH-46	
6323	AIRCRAFT COM/NAV/ELEC/SYS TECH CH-53	
6324	AIRCRAFT COM/NAV/ELEC/WEAP/SYS TECH U/AI-1	
6325	AIRCRAFT COM/NAV/ELEC/WEAP/SYS TECH V-22	
6331	AIRCRAFT ELEC/SYS TECH-IRINEE	
6333	AIRCRAFT ELEC/SYS TECH A-6/EA-6	
6335	AIRCRAFT ELEC/SYS TECH AV-8	
6336	AIRCRAFT ELEC/SYS TECH KC-130	
6337	AIRCRAFT ELEC/SYS TECH F/A-18	
6353	AIRCRAFT WEAP/SYS SPECIALIST A-6/FC-4C	
6354	AIRCRAFT WEAP/SYS SPECIALIST F-4S	
6363	AIRCRAFT RADAR RECON/COM/CA/RA SYS TECH RF-4B	
6386	AIRCRAFT ELEC COM/NAV/SYS TECH EA-6B	
6391	AVIONICS MAINTENANCE CHIEF	
6404	AVIC AIRCRAFT ELEC/INSIR/FLIGHT CNTRL SYS TECH IMA	
6411	AIRCRAFT COM/NAV/SYS TECH-IRNEE IMA	
6412	AIRCRAFT COM/SYS TECH IMA	
6413	AIRCRAFT NAV/SYS TECH IFT/RADAR/TACAN IMA	
6414	ADV AIRCRAFT COM/NAV/SYS TECH IMA	
6422	AIRCRAFT CRYPTOGRAPHIC/SYS TECH IMA	
6423	AVIA ELEC MICRO-MINIR/INSIR & CABLE REPAIR TECH	
6431	AIRCRAFT ELEC/SYS TECH-IRNEE	
6432	AIRCRAFT ELEC/INSIR/FLT CRTL SYS TECH FX WING IMA	
6433	AIRCRAFT ELEC/INSIR/FLT CRTL SYS TECH HELCP/AV 10 IMA	
6434	AVIC AIRCRAFT ELEC/INSIR/FLT CRTL SYS TECH IMA	
6462	AVIONICS TEST SET(ATS) TECH IMA	
6463	RADAR IST STA(RTS)/RADAR SYS IST STA(RSTS)TECH IMA	
6464	AIRCRAFT INERTIAL NAVG SYS TECH IMA	
6465	HYBRID TEST SET TECH IMA	
6466	AIRCRAFT FWD LOOKING INFRARED/ELEC-OPTICAL TECH IMA	
6467	AIRCRAFT RADCOM/GAT IIID TECH IMA	
6468	AIRCRAFT ELEC EQUIP IST SET/ABL ELEC IST SET TECH IMA	
6469	ADVIC AUTOMATIC TEST EQUIP TECH IMA	
6474	AIRCRAFT WEAPONS SYS TECH AWC-10 IMA	
6475	AIRCRAFT RADAR/IR RECONNAISSANCE SYS TECH IMA	
6476	AIRCRAFT CAMERA/ADAS SYS TECH IMA	
6478	ADVIC AIRCRAFT WEAPONS SYS TECH IMA	
6482	AIRCRAFT ELEC COUNTERMEASURE SYS TECH FIXED WINGS IMA	
6483	AIRCRAFT ELEC COUNTERMEASURE SYS TECH HELICOPTER IMA	
6484	AIRCRAFT ELEC COUNTERMEASURE SYS TECH EA-6 IMA	
6485	ADVIC AIRCRAFT ELEC COUNTERMEASURE TECH IMA	
6492	AVIATION PME/ATE CALIBRATION & REPAIR TECH	
2000	BASIC DATA/COM MAINTENANCE MARINE	
2011	TELEPHONE TECH	
2013	CABLE SYSTEMS TECH	
2010	TELETYPE & TACTICAL OFC MACHINE TECH	
2021	COMPUTER TECHNICIAN	
2022	ELECTRONIC SWITCHING EQUIP TECH	
2023	TECHNICAL CONTROLLER	
2024	MICROCOMPUTER REPAIRER	
2026	AN/MSC-63A MAINTENANCE TECHNICIAN	
2027	MOBILE DATA TERMINAL TECH	
2029	MOBILE COM/NAV TECH	
2031	MICROWAVE EQUIP TECH	
2033	FLEET SATELLITE TERMINAL TECH	
2034	GROUND MOBILE FORCES SATCOM TECH	
2041	GROUND RADIO REPAIRER	
2042	PLRS MAINTENANCE TECH	
2043	PLRS SUPPORT MAINTENANCE TECH	
2061	RADIO TECHNICIAN	
2067	AN/ISC-95 RADIO TECH	
2071	1ST MEASUREMENT & DIAGNOSTIC EQUIP TECH	
2074	METROLOGY TECH	
2077	RADAR INSTRUMENT TECH	
2081	COM SECURITY EQUIP TECH	
2084	GROUND RADAR REPAIRER	
2085	ARTILLERY ELECTRONIC SYSTEMS REPAIRER	
2087	COUNTER MORAR RADAR REPAIRER	
2089	GROUND RADAR TECHNICIAN	
2091	DATA/COM MAINTENANCE CHIEF	
5900	BASIC ELECTRONICS MAINTENANCE MARINE	
5911	MICROMINIATURE CIRCUIT REPAIR SPECIALIST	
5921	HAWK FIRE CONTROL REPAIRER	
5922	HAWK INFORMATION COORDINATION CENTRAL REPAIRER	
5923	HAWK FIRING SECTION REPAIRER	
5924	HAWK PULSE RADAR TECHNICIAN	
5925	HAWK CONTINUOUS WAVE RADAR TECHNICIAN	
5927	HAWK FIRE CONTROL TECHNICIAN	
5928	HAWK MISSILE SYSTEM MAINTENANCE TECHNICIAN	
5929	HAWK MECHANICAL SYSTEM REPAIR	
5937	AVIATION RADIO REPAIRER	
5938	AVIATION METEOROLOGICAL EQUIPMENT TECHNICIAN	
5939	AVIATION RADIO TECHNICIAN	
5942	AVIATION RADAR REPAIRER (AN/IPS-59)	
5943	AVIATION FIRE CONTROL REPAIRER	
5944	AVIATION RADAR REPAIRER (AN/IPS-63)	
5945	AVIATION RADAR REPAIRER (AN/IPS-32)	
5947	AVIATION FIRE CONTROL TECHNICIAN	
5948	AVIATION RADAR TECHNICIAN	
5952	AIR TRAFFIC CONTROL NAVIGATIONAL AIDS TECHNICIAN	
5953	AIR TRAFFIC CONTROL RADAR TECHNICIAN	
5954	AIR TRAFFIC CONTROL COM TECHNICIAN	
5959	AIR TRAFFIC CONTROL SYSTEM MAINTENANCE CHIEF	
5962	TACTICAL AIR COMMAND CENTRAL REPAIRER	
5963	TACTICAL AIR OPERATIONS CENTRAL REPAIRER	
5964	TACTICAL DATA COMMUNICATIONS CENTRAL REPAIRER	
5974	TACTICAL AIR COMMAND CENTRAL TECHNICIAN	
5977	TACTICAL GENERAL PURPOSE COMPUTER TECHNICIAN	
5978	TACTICAL DATA COMMUNICATIONS CENTRAL TECHNICIAN	
5979	TACTICAL AIR OPERATIONS CENTRAL TECHNICIAN	
5982	COMP SYS TECH HONEYWELL DPS-6 (AN/DYK-65V)) SYS	
5983	ELECTRONICS MAINTENANCE CHIEF	
5994	TACTICAL DATA SYSTEMS MAINTENANCE CHIEF	

Table B-1. (Continued)

OIHAI (Other Air)

6500 BASIC AVIATION ORDNANCE MARINE
6511 AVIATION ORDNANCE TRAINEE
6521 AVIATION ORDNANCE MUNITIONS TECHNICIAN
6531 AIRCRAFT ORDNANCE TECHNICIAN
6541 AVIATION ORDNANCE EQUIPMENT REPAIR TECHNICIAN
6561 MARINE WING WEAPONS UNIT SPECIALIST
6591 AVIATION ORDNANCE CHIEF
6600 BASIC WEATHER SERVICE MARINE
6821 WEATHER OBSERVER
6842 WEATHER FORECASTER
7000 BASIC AIRFIELD SERVICES MARINE
7011 AIRCRAFT RECOVERY SPECIALIST
7041 AVIATION OPERATION SPECIALIST
7051 AIRCRAFT FIREFIGHTING AND RESCUE SPECIALIST
7200 BASIC AIR CONTROL/AIR SUPPORT/AIR WARFARE MARINE
7212 LOW ALTITUDE AIR DEFENSE GUNNER
7222 HAWK MISSILE SYSTEM OPERATOR
7234 AIR COMMAND AND CONTROL ELECTRONICS OPERATOR
7236 TACTICAL AIR DEFENSE CONTROLLER
7242 AIR SUPPORT OPERATIONS OPERATOR
7300 BASIC AIR TRAFFIC CONTROL/ENLISTED FLIGHT CREW MARINE
7311 AIR TRAFFIC CONTROLLER-TRAINEE
7312 AIR TRAFFIC CONTROLLER-TOWER
7322 AIR TRAFFIC CONTROLLER-RADAR
7324 RADAR APPROACH CONTROLLER
7371 AERIAL NAVIGATOR-TRAINEE
7372 FIRST NAVIGATOR
7381 AIRBORNE RADIO OPERATOR/LOADMASTER-TRAINEE
7382 AIRBORNE RADIO OPERATOR/LOADMASTER
7391 AIC OPERATIONS CHIEF

ADMIN

0100 BASIC ADMIN MARINE
0121 PERSONNEL CLERK
0131 UNIT DIARY CLERK
0151 ADMIN CLERK
0161 POSTAL CLERK
0171 MANPOWER INFO SYS ANALYST
0193 PERSONNEL/ADMIN CHIEF
3000 BASIC SUPPLY ADMINISTRATION & OPER MARINE
3043 SUPPLY ADMIN & OPER CLERK
3044 PURCHASING AND CONTRACTING SPECIALIST
3051 WAREHOUSE CLERK
3052 PACKAGING SPECIALIST
3061 SUBSISTENCE SUPPLY CLERK
3072 AVIATION SUPPLY CLERK
3073 AUTOMATED INFO SYS COMPUTER OPERATOR
3400 BASIC AUDITING FINANCE & ACCTG MARINE

3421 PERSONAL FINANCIAL RECORDS CLERK
3431 TRAVEL CLERK
3432 DISBURSER/DISBURSING CHIEF
3441 NAF AUDIT TECHNICIAN
3451 ACCOUNTING TECH
4400 BASIC LEGAL SERVICES MARINE
4421 LEGAL SERVICES SPECIALIST
4425 LEGAL SERVICES NOTEREADER/TRANSCRIBER(STENO TYPE)
4429 LEGAL SERVICES REPORTER(STENO TYPE)

OIHTECH (Other Technical)

2500 BASIC OPERATIONAL COMMUNICATOR
2512 FIELD WIREMAN
2513 CONSTRUCTION WIREMAN
2514 UNIT LEVEL SWITCHBOARD INSTALL/MAINTAINER
2515 ULS CENTRAL OFC OPERATOR/MAINTAINER
2519 WIRE CHIEF
2531 FIELD RADIO OPERATOR
2532 MICROWAVE EQUIPMENT OPERATOR
2533 RADIO TELEGRAPH OPERATOR
2534 HIGH FREQUENCY COMM CENTRAL OPERATOR
2535 FLEET SATCOM TERMINAL OPERATOR
2536 GROUND MOBILE FORCES SATCOM OPERATOR
2537 RADIO CHIEF
2538 FLEET SATCOM RADIO CHIEF
2539 GROUND MOBILE FORCES SATCOM RADIO CHIEF
2542 COMMUNICATION CENTER OPERATOR
2549 COMMUNICATION CENTER CHIEF
2581 RADIO FREQUENCY MANAGEMENT TECH
2585 PLRS MASTER STATION OPERATOR
2591 OPERATIONAL COMMUNICATION CHIEF
4000 BASIC DATA SYSTEMS MARINE
4025 NETWORK CONTROL SPECIALIST
4034 COMPUTER OPERATOR
4036 DATA CONTROL SPECIALIST
4041 TELEPROCESSING SPECIALIST
4063 PROGRAMMER, COBOL
4065 PROGRAMMER, ALC
4066 SMALL COMPUTER SYSTEMS SPECIALIST(SCSS)
4067 PROGRAMMER, ADA
4069 SYSTEMS PROGRAMMER
4071 DATA BASE MANAGEMENT SYSTEM(DBMS) SPECIALIST
4075 COMPUTER SECURITY SPECIALIST
4099 DATA PROCESSING CHIEF

Table B-1. (Continued)

OTHER-OTHER	2629 SIGNALS INTELLIGENCE ANALYST
0200 BASIC INTELLIGENCE MARINE	2631 NON-MORSE INTERCEPT OPERATOR/ANALYST
0211 COUNTERINTELLIGENCE SPECIALIST	2643 CRYPTOLOGIC TRANSLATOR
0231 INTELLIGENCE SPECIALIST	2649 CRYPTANALYST
0241 IMAGERY INTERPRETATION SPECIALIST	2651 SPECIAL INTELLIGENCE COMMUNICATOR
0251 INTERROGATION TRANSLATION SPECIALIST	2659 CRYPTOLOGIC SUPPORT SPECIALIST
0261 MAPPING SPECIALIST	2671 CRYPTOLOGIC LINGUIST, PERSIAN/SEMITIC
0291 INTELLIGENCE CHIEF	2673 CRYPTOLOGIC LINGUIST, EAST ASIAN
0400 BASIC LOGISTICS MARINE	2674 CRYPTOLOGIC LINGUIST, SPANISH
0411 MAINTENANCE MANAGEMENT SPECIALIST	2675 CRYPTOLOGIC LINGUIST, RUSSIAN
0431 LOGISTICS/EMBARKATION SPECIALIST	2691 SIGNALS INTELLIGENCE/ELECTRIC WARFARE CHIEF
0451 AIR DELIVERY SPECIALIST	3100 BASIC TRAFFIC MANAGEMENT MARINE
0481 LANDING SUPPORT SPECIALIST	3112 TRAFFIC MANAGEMENT SPECIALIST
0491 COMBAT SERVICE SUPPORT CHIEF	3300 BASIC FOOD SERVICE MARINE
1100 BASIC UTILITIES MARINE	3372 ENLISTED AID (FOOD)
1141 ELECTRICIAN	3381 FOOD SERVICE SPECIALIST
1142 ELECTRICAL EQUIPMENT REPAIR SPECIALIST	3500 BASIC MOTOR TRANSPORT MARINE
1161 REFRIGERATION MECHANIC	3513 BODY REPAIR MECHANIC
1169 UTILITIES CHIEF	3521 ORGANIZATIONAL AUTOMOTIVE MECHANIC
1171 HYGIENE EQUIPMENT OPERATOR	3522 INTERMEDIATE AUTOMOTIVE MECHANIC
1181 FABRIC REPAIR SPECIALIST	3523 VEHICLE RECOVERY MECHANIC
1300 BASIC ENG CONSTRUCTION AND EQUIP MARINE	3524 FUEL AND ELECTRICAL SYSTEMS MECHANIC
1316 METAL WORKER	3525 CRASH/FIRE/RESCUE VEHICLE MECHANIC
1341 ENG EQUIP MECHANIC	3529 MOTOR TRANSPORT MAINTENANCE CHIEF
1345 ENG EQUIP OPERATOR	3531 MOTOR VEHICLE OPERATOR
1346 ROCK QUARRY OPERATOR	3533 LOGISTICS VEHICLE SYSTEM OPERATOR
1349 ENG EQUIP CHIEF	3534 SEMITRAILER REFUELLER OPERATOR
1361 ENG ASSISTANT	3537 MOTOR TRANSPORT OPERATION CHIEF
1371 COMBAT ENG	3538 LICENSING EXAMINER
1391 BULK FUEL SPECIALIST	4100 BASIC MARINE CORPS EXCHANGE MARINE
1500 BASIC PRINT AND REPRODUCTION MARINE	4131 EXCHANGE MARINE
1521 OFFSET PRESS OPERATOR	4132 CLUB MANAGER/TREASURER
1532 PROCESS CAMERA OPERATOR	4300 BASIC PUBLIC AFFAIRS MARINE
1541 REPRODUCTION CHIEF	4313 BROADCAST JOURNALIST
1542 REPRODUCTION EQUIP REPAIRER	4321 PRINT JOURNALIST
2100 BASIC ORDNANCE MARINE	4322 PHOTOJOURNALIST
2111 SMALL ARMS REPAIR/TECHNICIAN	4391 PUBLIC AFFAIRS CHIEF
2112 RIFLE TEAM EQUIP REPAIRER	4600 BASIC TRAINING AND VISUAL INFO SUPPORT MARINE
2131 TOWED ARTILLERY SYS TECHNICIAN	4611 GRAPHICS SPECIALIST
2141 ASSAULT AMPHIBIAN VEHICLE REPAIR/TECH	4621 TRAINING EQUIPMENT AND LIBRARY SPECIALIST
2143 SELF-PROPELLED ARTILLERY REPAIR/TECH	4641 COMBAT STILL PHOTOGRAPHER
2145 COMBAT TANK REPAIR/TECH	4642 COMBAT PHOTOGRAPHIC TECHNICIAN
2146 MAIN BATTLE TANK REPAIR/TECH	4653 COMBAT VISUAL INFORMATION EQUIPMENT TECHNICIAN
2147 LIGHT ARMORED VEHICLE REPAIR/TECH	4671 COMBAT PHOTOGRAPHER/MOTION MEDIA
2149 ORDNANCE VEHICLE MAINTENANCE CHIEF	4691 TRAINING AND VISUAL INFORMATION SUPPORT CHIEF
2161 MACHINIST	5500 BASIC MUSICIAN
2171 OPTICAL INSTRUMENT REPAIRER	5519 ENLISTED BAND LEADER
2175 ELEC-OPT/LASER/SML MISSILE/ORD CIR CARD TECH	5521 BAND DRUM MAJOR
2181 GROUND ORD WEAPONS CHIEF/SR GRD ORD CHIEF	5523 INSTRUMENT REPAIR SPECIALIST
2182 ORDNANCE ELECTRONICS EQUIPMENT CHIEF	5526 MUSICIAN, OBEO/ENGLISH HORN
2300 BASIC AMMUNITION & EXPLSV ORDN DISP MARINE	5528 MUSICIAN, BASSOON
2311 AMMUNITION TECH	5534 MUSICIAN, CLARINET
2336 EXPLOSIVE ORDNANCE DISPOSAL TECH	5536 MUSICIAN, FLUTE AND PICCOLO
2362 GROUND NUCLEAR ORDNANCE TECH	5537 MUSICIAN, SAXOPHONE
2600 BASIC SIGNAL INTELLIGENCE/GND ELEC WARFARE OPER	5541 MUSICIAN, CORNET/TRUMPET
2621 MANUAL MORSE INTERCEPT OPERATOR	5543 MUSICIAN, BARITONE HORN/EUPHONIUM
	5544 MUSICIAN, FRENCH HORN

Table B-1. (Continued)

5546 MUSICIAN, TROMBONE	9900 BASIC MARINE GENERAL SERVICE
5547 MUSICIAN, TUBA AND STRING BASS/ELECTRIC BASS	9915 SPECIAL ASSIGNMENT-ENLISTED
5563 MUSICIAN, PERCUSSION(DRUMS, TIMPANI, AND MALLETS)	9916 BILLET DESIGNATOR-ENLISTED
5565 MUSICIAN, PIANO OR ACCORDION OR GUITAR	9917 COLLEGE DEGREE-ENLISTED
5571 DRUM AND BUGLE CORPS DRUM MAJOR	9919 MARINE AIR GROUND TASK FORCE PLANS/OPERATIONS SPEC
5574 MUSICIAN, SOPRANO OR MELLOPHONE BUGLE	9935 SPECIAL TECHNICAL OPERATIONS(OFFICER: 1B, ENLISTED)
5576 MUSICIAN, FRENCH HORN BUGLE	9962 PARACHUTIST(OFFICER: 2E/ENLISTED)
5577 MUSICIAN, BASS BARITONE BUGLE	9971 BASIC MARINE WITH ENLISTMENT GUARANTEE
5579 MUSICIAN, CONTRABASS BUGLE	9981 TACTICAL DATA SYSTEMS SPEC (OFFICER: 7E/ENLISTED)
5593 MUSICIAN, PERCUSSION (DRUM AND BUGLE CORPS)	9982 SMALL COMPUTER SYSTEMS OPERATOR/PROGRAMMER
5700 BASIC NUCLEAR, BIOLOGICAL AND CHEMICAL MARINE	9991 SERGEANT MAJOR OF THE MARINE CORPS
5711 NUCLEAR, BIOLOGICAL AND CHEMICAL DEFENSE SPECIALIST	9999 SERGEANT MAJOR/FIRST SERGEANT
5800 BASIC MILITARY POLICE AND CORRECTIONS MARINE	
5811 MILITARY POLICE	
5812 MILITARY POLICE DOG HANDLER	
5813 ACCIDENT INVESTIGATOR	
5814 CRIME PREVENTION PHYSICAL SECURITY SPECIALIST	
5821 CRIMINAL INVESTIGATOR	
5822 POLYGRAPH EXAMINER	
5831 CORRECTIONAL SPECIALIST	
5832 CORRECTIONAL COUNSELOR	
8033 QUALITY ASSURANCE TECH (SUBSISTENCE)	
8151 GUARD	
8152 MARINE CORPS SECURITY FORCE(MCSF)GUARD	
8153 CADRE TRAINER	
8154 MARINE CORPS SEC FORCE CLOSE QUART BTL TEAM MBR	
8231 EDUCATION ASSISTANT	
8411 RECRUITER	
8412 CAREER RECRUITER	
8421 CAREER PLANNER	
8431 PSYCHOLOGICAL OPERATIONS NCO	
8441 CIVIL AFFAIRS NCO	
8511 DRILL INSTRUCTOR	
8531 MARKSMANSHIP INSTRUCTOR	
8532 SMALL ARMS WEAPONS INSTRUCTOR	
8538 SUBSTANCE ABUSE COUNSELOR	
8541 SCOUT SNIPER	
8563 WATER SAFETY/SURVIVAL INSTRUCTOR	
8611 INTERPRETER(DESIGNATED LANGUAGE)	
8621 SURVEILLANCE SENSOR OPERATOR	
8631 SURVEILLANCE SENSOR MAINTENANCE MAN	
8652 RECONNAISSANCE MAN PARACHUTE JUMP QUALIFIED	
8653 RECONNAISSANCE MAN SCUBA QUALIFIED	
8654 RECONNAISSANCE MAN PARACHUTE AND SCUBA QUALIFIED	
8711 INFANTRY OPERATIONS SPECIALIST	
8811 FIREFIGHTER	
8911 BARRACKS AND GROUNDS MARINE	
8915 FOOD SERVICE ATTENDANT	
8921 ATHLETIC AND RECREATION ASSISTANT	
8981 MILITARY AFFILIATE RADIO SYSTEM RADIO OPERATOR	
9951 GRAVES REGISTRATION SPECIALIST	
9911 MEMBER UNITED STATES MARINE BAND	

Table B-2. Counts of Zone A reenlistments, by MOS

100 BASIC ADMIN MARINE	19	1542 REPRODUCTION EQUIP REPAIRER	0
121 PERSONNEL CLERK	328	1800 BASIC TANK AND ASSAULT AMPHIBIAN CREWMAN	4
131 UNIT DIARY CLERK	295	1811 M60A1 TANK CREWMAN	206
151 ADMIN CLERK	1014	1812 M1A1 TANK CREWMAN	0
161 POSTAL CLERK	64	1833 ASSAULT AMPHIBIAN CREWMAN	347
171 MAINTENANCE INFO SYS ANALYST	0	2100 BASIC ORDNANCE MARINE	20
193 PERSONNEL/ADMIN CHIEF	3	2111 SMALL ARMS REPAIR/TECHNICIAN	186
200 BASIC INTELLIGENCE MARINE	28	2112 RIFLE TEAM EQUIP REPAIRER	0
211 COUNTERINTELLIGENCE SPECIALIST	2	2131 TOWED ARTILLERY SYS TECHNICIAN	58
231 INTELLIGENCE SPECIALIST	67	2141 ASSAULT AMPHIBIAN VEHICLE REPAIR/TECH	39
241 IMAGERY INTERPRETATION SPECIALIST	7	2143 SELF-PROPELLED ARTILLERY REPAIR/TECH	4
251 INTERROGATION TRANSLATION SPECIALIST	3	2145 COMBAT TANK REPAIR/TECH	81
261 MAPPING SPECIALIST	0	2146 MAIN BATTLE TANK REPAIR/TECH	16
291 INTELLIGENCE CHIEF	0	2147 LIGHT ARMORED VEHICLE REPAIR/TECH	13
300 BASIC INFANTRY MAN	0	2149 ORDNANCE VEHICLE MAINTENANCE CHIEF	0
311 RIFLEMAN	18	2161 MACHINIST	29
313 LAV CREWMAN	3651	2171 OPTICAL INSTRUMENT REPAIRER	29
321 RECONNAISSANCE MAN	53	2175 ELEC-OPT/LASER/SML MISSILE/ORD CIR CARD TECH	0
331 MACHINEGUNNER	0	2181 GROUND ORD WEAPONS CHIEF/SR GRD ORD CHIEF	0
332 GUNNER HEAVY MACHINEGUN	782	2182 ORDNANCE ELECTRONICS EQUIPMENT CHIEF	0
341 MORTARMAN	0	2300 BASIC AMMUNITION & EXPLSV ORDN DISP MARINE	11
351 ASSAULT MAN	787	2311 AMMUNITION TECH	197
352 AIR TANK ASSAULT GUIDED MISSILEMAN	817	2336 EXPLOSIVE ORDNANCE DISPOSAL TECH	12
369 INFANTRY UNIT LEADER	210	2362 GROUND NUCLEAR ORDNANCE TECH	0
400 BASIC LOGISTICS MARINE	19	2500 BASIC OPERATIONAL COMMUNICATOR	7
411 MAINTENANCE MANAGEMENT SPECIALIST	22	2512 FIELD WIREMAN	521
431 LOGISTICS/EMBARKATION SPECIALIST	57	2513 CONSTRUCTION WIREMAN	30
451 AIR DELIVERY SPECIALIST	149	2514 UNIT LEVEL SWITCHBOARD INSTALL/MAINTAINER	0
481 LAUNCH SUPPORT SPECIALIST	39	2515 ULS CENTRAL OFC OPERATOR/MAINTAINER	0
491 COMBAT SERVICE SUPPORT CHIEF	104	2519 WIRE CHIEF	6
800 BASIC FIELD ARTILLERY MAN	0	2531 FIELD RADIO OPERATOR	1346
811 FIELD ARTILLERY CANNONEER	638	2532 MICROWAVE EQUIPMENT OPERATOR	42
812 FIELD ARTILLERY NUCLEAR PROJECTILEMAN	0	2533 RADIO TELEGRAPH OPERATOR	0
842 FIELD ARTILLERY RADAR OPERATOR	22	2534 HIGH FREQUENCY COMM CENTRAL OPERATOR	64
844 FIELD ARTILLERY FIRE CONTROL MAN	231	2535 FLEET SATCOM TERMINAL OPERATOR	0
847 ARTILLERY METEOROLOGICAL MAN	14	2536 GROUND MOBILE FORCES SATCOM OPERATOR	2
848 FIELD ARTILLERY OPERATIONS MAN	0	2537 RADIO CHIEF	6
861 FIRE SUPPORT MAN	63	2538 FLEET SATCOM RADIO CHIEF	0
1100 BASIC UTILITIES MARINE	7	2539 GROUND MOBILE FORCES SATCOM RADIO CHIEF	0
1141 ELECTRICIAN	95	2542 COMMUNICATION CENTER OPERATOR	463
1142 ELECTRICAL EQUIPMENT REPAIR SPECIALIST	131	2549 COMMUNICATION CENTER CHIEF	3
1161 REFRIGERATION MECHANIC	58	2581 RADIO FREQUENCY MANAGEMENT TECH	0
1169 UTILITIES CHIEF	1	2585 PERS MASTER STATION OPERATOR	0
1171 HYGIENE EQUIPMENT OPERATOR	116	2591 OPERATIONAL COMMUNICATION CHIEF	1
1181 FABRIC REPAIR SPECIALIST	22	2600 BASIC SIGNAL INTELLIGENCE/ORD ELEC WARFARE OPER	5
1300 BASIC ENG CONSTRUCTION AND EQUIP MARINE	18	2621 MANUAL MORSE INTERCEPT OPERATOR	108
1316 METAL WORKER	55	2629 SIGNALS INTELLIGENCE ANALYST	31
1341 ENG EQUIP MECHANIC	291	2631 NON-MORSE INTERCEPT OPERATOR/ANALYST	0
1345 ENG EQUIP OPERATOR	257	2643 CRYPTOLOGIC TRANSLATOR	0
1346 RICK CHAIRY OPERATOR	0	2649 CRYPTANALYST	0
1349 ENG EQUIP CHIEF	0	2651 SPECIAL INTELLIGENCE COMMUNICATOR	60
1361 ENG ASSISTANT	0	2659 CRYPTOLOGIC SUPPORT SPECIALIST	0
1371 COMBAT ENG	576	2671 CRYPTOLOGIC LINGUIST, PERSIAN/SEMITIC	13
1391 BULK FUEL SPECIALIST	257	2673 CRYPTOLOGIC LINGUIST, EAST ASIAN	7
1500 BASIC PRINT AND REPRODUCTION MARINE	1	2674 CRYPTOLOGIC LINGUIST, SPANISH	13
1521 OFFSET PRESS OPERATOR	20	2675 CRYPTOLOGIC LINGUIST, RUSSIAN	9
1532 PROCESS CAMERA OPERATOR	5	2691 SIGNALS INTELLIGENCE/ELECTRONIC WARFARE CHIEF	0
1541 REPRODUCTION CHIEF	0	2800 BASIC DATA/COMM MAINTENANCE MARINE	17
		2811 TELEPHONE TECH	75
		2813 CABLE SYSTEMS TECH	19

Table B-2. (Continued)

2810 TELETYPE & TACTICAL OFC MACHINE TECH	46	4030 DATA CONTROL SPECIALIST	15
2821 COMPUTER TECHNICIAN	0	4041 TELEPROCESSING SPECIALIST	0
2822 ELECTRONIC SWITCHING EQUIP TECH	9	4063 PROGRAMMER, CONTROL	98
2823 TECHNICAL CONTROLLER	0	4065 PROGRAMMER, ALC	3
2824 MICROCOMPUTER REPAIRER	0	4066 SMALL COMPUTER SYSTEMS SPECIALIST(SCSS)	0
2826 AM/MSC-63A MAINTENANCE TECHNICIAN	2	4067 PROGRAMMER, ADA	0
2827 MOBILE DATA TERMINAL TECH	3	4069 SYSTEMS PROGRAMMER	1
2829 MOBILE COMM CENTRAL TECH	0	4071 DATA BASE MANAGEMENT SYSTEM(DBMS) SPECIALIST	0
2831 MICROWAVE EQUIP TECH	33	4075 COMPUTER SECURITY SPECIALIST	0
2833 FLEET SATELLITE TERMINAL TECH	1	4099 DATA PROCESSING CHIEF	0
2834 GROUND MOBILE FORCES SATCOM TECH	0	4100 BASIC MARINE CORPS EXCHANGE MARINE	0
2841 GROUND RADIO REPAIRER	303	4131 EXCHANGE MARINE	28
2842 PERS MAINTENANCE TECH	0	4132 CLUB MANAGER/TREASURER	0
2843 PERS SUPPORT MAINTENANCE TECH	0	4300 BASIC PUBLIC AFFAIRS MARINE	4
2861 RADIO TECHNICIAN	1	4313 BROADCAST JOURNALIST	7
2867 AM/ISC-95 RADIO TECH	0	4321 PRINT JOURNALIST	35
2871 TSI MEASUREMENT & DIAGNOSTIC EQUIP TECH	18	4322 PHOTOJOURNALIST	0
2874 METEOROLOGY TECH	1	4391 PUBLIC AFFAIRS CHIEF	0
2877 RADIAC INSTRUMENT TECH	9	4400 BASIC LEGAL SERVICES MARINE	4
2881 COMM SECURITY EQUIP TECH	34	4421 LEGAL SERVICES SPECIALIST	70
2884 GROUND RADAR REPAIRER	25	4425 LEGAL SERVICES NOTEREADER/TRANSCRIBER(STENO TYPE)	19
2885 ARTILLERY ELECTRONIC SYSTEMS REPAIRER	4	4429 LEGAL SERVICES REPORTER(STENO TYPE)	1
2887 CUMMINS MORTAR RADAR REPAIRER	0	4600 BASIC TRAINING AND VISUAL INFO SUPPORT MARINE	12
2889 GROUND RADAR TECHNICIAN	0	4611 GRAPHICS SPECIALIST	13
2891 DATA/COMM MAINTENANCE CHIEF	0	4621 TRAINING EQUIPMENT AND LIBRARY SPECIALIST	21
3000 BASIC SUPPLY ADMINISTRATION & OPER MARINE	27	4641 COMBAT STILL PHOTOGRAPHER	23
3043 SUPPLY ADMIN & OPER CLERK	636	4642 COMBAT PHOTOGRAPHIC TECHNICIAN	3
3044 PURCHASING AND CONTRACTING SPECIALIST	5	4653 COMBAT VISUAL INFORMATION EQUIPMENT TECHNICIAN	0
3051 WAREHOUSE CLERK	679	4671 COMBAT PHOTOGRAPHER/MOTION MEDIA	0
3052 PACKAGING SPECIALIST	42	4691 TRAINING AND VISUAL INFORMATION SUPPORT CHIEF	2
3061 SUBSISTENCE SUPPLY CLERK	59	5300 BASIC MUSICIAN	0
3072 AVIATION SUPPLY CLERK	306	5319 ENLISTED BAND LEADER	0
3073 AUTOMATED INFO SYS COMPUTER OPERATOR	19	5321 BAND DRUM MAJOR	0
3100 BASIC TRAFFIC MANAGEMENT MARINE	2	5323 INSTRUMENT REPAIR SPECIALIST	0
3112 TRAFFIC MANAGEMENT SPECIALIST	46	5326 MUSICIAN, OBONE/ENGLISH HORN	1
3300 BASIC FOOD SERVICE MARINE	9	5328 MUSICIAN, BASSOON	0
3372 ENLISTED AID (FOOD)	0	5334 MUSICIAN, CLARINET	13
3381 FOOD SERVICE SPECIALIST	460	5337 MUSICIAN, FLUTE AND PICCOLO	2
3400 BASIC AUDITING FINANCE & ACCTG MARINE	0	5341 MUSICIAN, SAXOPHONE	16
3421 PERSONAL FINANCIAL RECORDS CLERK	188	5343 MUSICIAN, CORNET/TRUMPET	25
3431 TRAVEL CLERK	26	5344 MUSICIAN, BARITONE HORN/EUPHONIUM	6
3432 DISPENSER/DISPENSING CHIEF	1	5344 MUSICIAN, FRENCH HORN	7
3441 NAF AIDIT TECHNICIAN	3	5346 MUSICIAN, TROMBONE	18
3451 ACCOUNTING TECH	54	5347 MUSICIAN, TUBA AND STRING BASS/ELECTRIC BASS	13
3500 BASIC MOTOR TRANSPORT MARINE	25	5363 MUSICIAN, PERCUSSION(DRUMS, TIMPANI, AND MALLETS)	12
3513 BODY REPAIR MECHANIC	19	5365 MUSICIAN, PIANO OR ACCORDION OR GUITAR	3
3521 ORGANIZATIONAL AUTOMOTIVE MECHANIC	470	5371 DRUM AND BUGLE CORPS DRUM MAJOR	0
3522 INTERMEDIATE AUTOMOTIVE MECHANIC	238	5374 MUSICIAN, SOPRANO OR MELLOPHONE BUGLE	14
3523 VEHICLE RECOVERY MECHANIC	61	5376 MUSICIAN, FRENCH HORN BUGLE	0
3524 FUEL AND ELECTRICAL SYSTEMS MECHANIC	36	5377 MUSICIAN, BASS BARITONE BUGLE	11
3525 CRASH/FIRE/RESCUE VEHICLE MECHANIC	0	5379 MUSICIAN, CONTRABASS BUGLE	0
3529 MOTOR TRANSPORT MAINTENANCE CHIEF	4	5393 MUSICIAN, PERCUSSION (DRUM AND BUGLE CORPS)	0
3531 MOTOR VEHICLE OPERATOR	1206	5700 BASIC NUCLEAR, BIOLOGICAL AND CHEMICAL MARINE	18
3533 LOGISTICS VEHICLE SYSTEM OPERATOR	237	5711 NUCLEAR, BIOLOGICAL AND CHEMICAL DEFENSE SPECIALIST	65
3534 SEMITRAILER REFUELLER OPERATOR	63	5800 BASIC MILITARY POLICE AND CORRECTIONS MARINE	26
3537 MOTOR TRANSPORT OPERATION CHIEF	2	5811 MILITARY POLICE	533
4000 BASIC DATA SYSTEMS MARINE	0	5812 MILITARY POLICE DOG HANDLER	30
4025 NETWORK CONTROL SPECIALIST	24	5813 ACCIDENT INVESTIGATOR	4
4034 COMPUTER OPERATOR	0	5814 CRIME PREVENTION PHYSICAL SECURITY SPECIALIST	0
	128	5821 CRIMINAL INVESTIGATOR	2

Table B-2. (Continued)

5822 POLYGRAPH EXAMINER	0	6051 AIRCRAFT HYDRLIC/PNEUMATIC MECH-IRAIINEE	1
5831 CORRECTIONAL SPECIALIST	153	6052 AIRCRAFT HYDRLIC/PNEUMATIC MECH A-4/1A-4/OA-4	44
5832 CORRECTIONAL COUNSELOR	0	6053 AIRCRAFT HYDRLIC/PNEUMATIC MECH A-6/EA-6	44
5909 BASIC ELECTRONICS MAINTENANCE MARINE	28	6054 AIRCRAFT HYDRLIC/PNEUMATIC MECH F-4/RF-4	71
5911 MICROMINIATURE CIRCUIT REPAIR SPECIALIST	0	6055 AIRCRAFT HYDRLIC/PNEUMATIC MECH AV-8/1AV-8	35
5921 HAWK FIRE CONTROL REPAIRER	15	6056 AIRCRAFT HYDRLIC/PNEUMATIC MECH KC-130	25
5922 HAWK INFORMATION COORDINATION CENTRAL REPAIRER	15	6057 AIRCRAFT HYDRLIC/PNEUMATIC MECH F/A-18	18
5923 HAWK FIRING SECTION REPAIRER	18	6058 AIRCRAFT HYDRLIC/PNEUMATIC MECH OV-10	4
5924 HAWK PULSE RADAR TECHNICIAN	2	6059 AIRCRAFT AIRFRAMES MAINI CHIEF	0
5925 HAWK CONTINUOUS WAVE RADAR TECHNICIAN	2	6060 FLIGHT EQUIP MARINE	95
5927 HAWK FIRE CONTROL TECHNICIAN	4	6071 AIRCRAFT MAINI GND SUP1 EQUIP MECIN IRIIE	6
5928 HAWK MISSILE SYSTEM MAINTENANCE TECHNICIAN	0	6072 AIRCRAFT MAINI GSE/ELEC1/PNEUMATIC/SIRC/MECHANIC	125
5929 HAWK MECHANICAL SYSTEM REPAIR	4	6073 AIRCRAFT MAINI GSE ELEC1/REFRIGERATION MECHANIC	17
5937 AVIATION RADIO REPAIRER	41	6075 CRYOGENICS EQUIP OPERATOR	31
5938 AVIATION METEOROLOGICAL EQUIPMENT TECHNICIAN	17	6081 AIRCRAFT SAFETY EQUIP MECHANIC-IRIIE	2
5939 AVIATION RADIO TECHNICIAN	0	6082 AIRCRAFT SAFETY EQUIP MECINIC A-4/1A-4/OL-4	29
5942 AVIATION RADAR REPAIRER (AN/IPS-59)	6	6083 AIRCRAFT SAFETY EQUIP MECINIC A-6/EA-6	15
5943 AVIATION FIRE CONTROL REPAIRER	18	6084 AIRCRAFT SAFETY EQUIP MECINIC F-4/RF-4	37
5944 AVIATION RADAR REPAIRER (AN/IPS-63)	11	6085 AIRCRAFT SAFETY EQUIP MECINIC AV-8/1AV-8	17
5945 AVIATION RADAR REPAIRER (AN/IPS-32)	22	6086 AIRCRAFT SAFETY EQUIP MECINIC KC-130	5
5947 AVIATION FIRE CONTROL TECHNICIAN	0	6087 AIRCRAFT SAFETY EQUIP MECINIC F/A-18	13
5948 AVIATION RADAR TECHNICIAN	0	6088 AIRCRAFT SAFETY EQUIP MECINIC OV-10	9
5952 AIR TRAFFIC CONTROL NAVIGATIONAL AIDS TECHNICIAN	16	6089 AIRCRAFT SAFETY EQUIP CHIEF	0
5953 AIR TRAFFIC CONTROL RADAR TECHNICIAN	13	6091 AIRCRAFT STRUCTURES MECHANIC-IRAIINEE	1
5954 AIR TRAFFIC CONTROL COMM TECHNICIAN	19	6092 AIRCRAFT STRUCTURES MECHANIC A-4/1A-4/OA-4	34
5959 AIR TRAFFIC CONTROL SYSTEM MAINTENANCE CHIEF	0	6093 AIRCRAFT STRUCTURES MECHANIC A-6/EA-6	21
5962 TACTICAL AIR COMMAND CENTRAL REPAIRER	17	6094 AIRCRAFT STRUCTURES MECHANIC F-4/RF-4	58
5963 TACTICAL AIR OPERATIONS CENTRAL REPAIRER	43	6095 AIRCRAFT STRUCTURES MECHANIC AV-8/1AV-8	27
5964 TACTICAL DATA COMMUNICATIONS CENTRAL REPAIRER	13	6096 AIRCRAFT STRUCTURES MECHANIC KC-130	13
5974 TACTICAL AIR COMMAND CENTRAL TECHNICIAN	0	6097 AIRCRAFT STRUCTURES MECHANIC F/A-18	21
5977 TACTICAL GENERAL PURPOSE COMPUTER TECHNICIAN	1	6098 AIRCRAFT STRUCTURES MECHANIC OV-10	0
5978 TACTICAL DATA COMMUNICATIONS CENTRAL TECHNICIAN	0	6111 HELICOPTER MECHANIC-IRAIINEE	4
5979 TACTICAL AIR OPERATIONS CENTRAL TECHNICIAN	1	6112 HELICOPTER MECHANIC CH-46	160
5982 COMP SYS TECH MONEYWELL DPS-6 (AI/UYK-65V)) SYS	10	6113 HELICOPTER MECHANIC CH-53	120
5993 ELECTRONICS MAINTENANCE CHIEF	0	6114 HELICOPTER MECHANIC U/AI-1	93
5994 TACTICAL DATA SYSTEMS MAINTENANCE CHIEF	0	6115 HELICOPTER MECHANIC CH-53E	44
6000 BASIC AIRCRAFT MAINTENANCE MARINE	15	6119 HELICOPTER MAINTENANCE CHIEF	0
6011 AIRCRAFT MECHANIC-IRAIINEE	5	6122 HELICOPTER POWER PLANTS MECHANIC I-58	43
6012 AIRCRAFT MECHANIC A-4/1A-4/OA-4	69	6123 HELICOPTER POWER PLANTS MECHANIC I-64	42
6013 AIRCRAFT MECHANIC A-6/EA-6	56	6125 HELICOPTER POWER PLANTS MECHANIC I-400	37
6014 AIRCRAFT MECHANIC F-4/RF-4	73	6132 HELICOPTER DYNAMIC COMPONENTS MECHANIC	39
6015 AIRCRAFT MECHANIC AV-8/1AV-8	48	6135 AIRCRAFT POWER PLNT 1ST CELL OPER ROTRY WNG	2
6016 AIRCRAFT MECHANIC KC-130	32	6142 HELICOPTER STRUCTURES MECHANIC CH-46	59
6017 AIRCRAFT MECHANIC F/A-18	33	6143 HELICOPTER STRUCTURES MECHANIC CH-53	63
6018 AIRCRAFT MECHANIC OV-10	16	6144 HELICOPTER STRUCTURES MECHANIC U/AI-1	42
6019 AIRCRAFT MAINTENANCE CHIEF	0	6152 HELICOPTER HYDRLIC/PNEUMATIC MECHANIC CH-46	29
6022 AIRCRAFT POWER PLANTS MECHANIC J-52	43	6153 HELICOPTER HYDRLIC/PNEUMATIC MECHANIC CH-53	25
6023 AIRCRAFT POWER PLANTS MECHANIC I-70	12	6154 HELICOPTER HYDRLIC/PNEUMATIC MECHANIC U/AI-1	21
6024 AIRCRAFT POWER PLANTS MECHANIC J-79	35	6155 HELICOPTER HYDRLIC/PNEUMATIC MECHANIC CH-53E	19
6025 AIRCRAFT POWER PLANTS MECHANIC ROLLS ROYCE PEGASUS	18	6159 HELICOPTER AIRFRAMES MAINI CHIEF	0
6026 AIRCRAFT POWER PLANTS MECHANIC I-56	26	6162 PRESIDENTIAL SUPPORT SPECIALIST	0
6027 AIRCRAFT POWER PLANTS MECHANIC F-404	5	6172 HELICOPTER CREW CHIEF CH-46	8
6031 AIRCRAFT FLIGHT ENGINEER KC-130 IRIINEE	0	6173 HELICOPTER CREW CHIEF CH-53 A/D	6
6032 AIRCRAFT FLIGHT ENGINEER KC-130	1	6174 HELICOPTER CREW CHIEF UH-1H	3
6035 AIRCRAFT POWER PLANT TEST CELL OPER FXD WNG	5	6175 HELICOPTER CREW CHIEF CH-53E	3
6043 AIRCRAFT WELDER	0	6176 HELICOPTER CREW CHIEF V-22	0
6044 AIRCRAFT NON-DESTRUCTIVE INSPECTION TECH	1	6300 BASIC AVIONICS MARINE	10
6046 AIRCRAFT MAINTENANCE ADMIN CLERK	115	6311 AIRCRAFT COM/NAVG/ELEC/NEAP/SYS/TECH-IRIIE OMA	11
6047 AIRCRAFT MAINTENANCE DATA ANALYSIS TECH	27	6312 AIRCRAFT COM/NAVG SYS TECH A-4/1A-4/OA-4	31
6048 AIRCRAFT MAINTENANCE COMPUTER SYS ANALY/OPER	0	6313 AIRCRAFT COM/NAVG/RADAR SYS TECH A-6/EA-6A	28

Table B-2. (Continued)

6314	AIRCRAFT COM/NAV SYS TECH RF-4/F4	31	7051	AIRCRAFT FIREFIGHTING AND RESCUE SPECIALIST	132
6315	AIRCRAFT COM/NAV SYS TECH AV-8	24	7200	BASIC AIR CONTROLL/AIR SUPPORT/AIR WARFARE MARINE	4
6316	AIRCRAFT COM/NAV SYS TECH KC-130	16	7212	LOW ALTITUDE AIR DEFENSE GUNNER	69
6317	AIRCRAFT COM/NAV/WEAP/SYS/TECH F/A-18	21	7222	HAWK MISSILE SYSTEM OPERATOR	74
6318	AIRCRAFT COM/NAV/WEAP/SYS/TECH OV-10	0	7234	AIR COMMAND AND CONTROL ELECTRONICS OPERATOR	34
6322	AIRCRAFT COM/NAV/WEAP/SYS TECH CH-46	33	7236	TACTICAL AIR DEFENSE CONTROLLER	1
6323	AIRCRAFT COM/NAV/WEAP/SYS TECH CH-53	31	7242	AIR SUPPORT OPERATIONS OPERATOR	49
6324	AIRCRAFT COM/NAV/WEAP/SYS TECH UH-1	41	7300	BASIC AIR TRAFFIC CONTROLLER/ENLISTED FLIGHT CREW MARINE	9
6325	AIRCRAFT COM/NAV/WEAP/SYS TECH V-22	0	7311	AIR TRAFFIC CONTROLLER-TRAINEE	6
6331	AIRCRAFT ELEC SYS TECH-TRAINEE	0	7312	AIR TRAFFIC CONTROLLER-TOWER	30
6333	AIRCRAFT ELEC SYS TECH A-6/EA-6	51	7322	AIR TRAFFIC CONTROLLER-RADAR	48
6335	AIRCRAFT ELEC SYS TECH AV-8	16	7324	RADAR APPROACH CONTROLLER	0
6337	AIRCRAFT ELEC SYS TECH KC-130	23	7371	AERIAL NAVIGATOR-TRAINEE	3
6339	AIRCRAFT ELEC SYS TECH F/A-18	16	7372	FIRST NAVIGATOR	11
6353	AIRCRAFT WEAP SYS SPECIALIST A-6/IC-4C	10	7381	AIRBORNE RADIO OPERATOR/LOADMASTER-TRAINEE	0
6354	AIRCRAFT WEAP SYS SPECIALIST F-4S	51	7392	AIRBORNE RADIO OPERATOR/LOADMASTER	0
6363	AIRCRAFT RADAR RECON/CAMRA SYS TECH RF-4B	5	7391	AIC OPERATIONS CHIEF	10
6366	AIRCRAFT ELEC COM/NAV SYS TECH EA-6B	27	8033	QUALITY ASSURANCE TECH (SUBSISTENCE)	0
6391	AVIONICS MAINTENANCE CHIEF	0	8151	GUARD	0
6404	ADVC AIRCRAFT ELEC/INSIR/FLIGHT CONTROLLER SYS TECH IMA	0	8152	MARINE CORPS SECURITY FORCE (MCSF) GUARD	0
6411	AIRCRAFT COM/NAV SYS TECH-TRAINEE IMA	0	8153	CADRE TRAINEE	0
6412	AIRCRAFT COM/NAV SYS TECH IMA	2	8154	MARINE CORPS SEC FORCE CLOSE QUARTERS TEAM MGR	0
6413	AIRCRAFT NAV SYS TECH IMA	60	8231	EDUCATION ASSISTANT	0
6414	ADVC AIRCRAFT COM/NAV SYS TECH IMA	0	8411	RECRUITER	0
6422	AIRCRAFT CRYPTOGRAPHIC SYS TECH IMA	32	8412	CAREER RECRUITER	0
6423	AVIA ELEC MICRO-MINIR/INSIR & CABLE REPAIR TECH	0	8421	CAREER PLANNER	0
6431	AIRCRAFT ELEC SYS TECH-TRAINEE	0	8431	PSYCHOLOGICAL OPERATIONS NCO	0
6432	AIRCRAFT ELEC/INSIR/FLI GIRL SYS TECH TX WING IMA	56	8441	CIVIL AFFAIRS NCO	0
6433	AIRCRAFT ELEC/INSIR/FLI GIRL SYS TECH HELICOPTER IMA	42	8511	DRILL INSTRUCTOR	0
6434	ADVC AIRCRAFT ELEC/INSIR/FLI GIRL SYS TECH IMA	10	8531	MARKSMANSHIP INSTRUCTOR	0
6462	AVIONICS TEST SET (ATS) TECH IMA	0	8532	SMALL ARMS WEAPONS INSTRUCTOR	0
6463	RADAR TEST SET (RTS)/RADAR SYS TEST STATION (RSIS) TECH IMA	4	8538	SUBSTANCE ABUSE COUNSELOR	0
6464	AIRCRAFT INERTIAL NAVG SYS TECH IMA	5	8541	SCOUT SNIPER	0
6465	HYBRID TEST SET TECH IMA	7	8563	WATER SAFETY/SURVIVAL INSTRUCTOR	0
6466	AIRCRAFT FWD LOOKING INFRARED/ELEC-OPTICAL TECH IMA	9	8611	INTERPRETER (DESIGNATED LANGUAGE)	0
6467	AIRCRAFT RADCOM/CAI LTID TECH IMA	12	8621	SURVEILLANCE SENSOR OPERATOR	0
6469	ADVC AIRCRAFT ELEC EQUIP TEST SET/MBL ELEC TEST SET TECH IMA	7	8631	SURVEILLANCE SENSOR MAINTENANCE MAN	0
6474	AIRCRAFT WEAPONS SYS TECH WING-10 IMA	25	8652	RECONNAISSANCE MAN PARACHUTE JUMP QUALIFIED	0
6475	AIRCRAFT RADAR/IR RECONNAISSANCE SYS TECH IMA	16	8653	RECONNAISSANCE MAN SCUBA QUALIFIED	0
6476	AIRCRAFT CAMERA/ADAS SYS TECH IMA	7	8654	RECONNAISSANCE MAN PARACHUTE AND SCUBA QUALIFIED	0
6478	ADVC AIRCRAFT WEAPONS SYS TECH IMA	0	8711	INFANTRY OPERATIONS SPECIALIST	0
6482	AIRCRAFT ELEC COUNTERMEASURE SYS TECH FIXED WINGS IMA	40	8811	FIREFIGHTER	0
6483	AIRCRAFT ELEC COUNTERMEASURE SYS TECH HELICOPTER IMA	6	8911	BARRACKS AND GROUND MARINE	0
6484	AIRCRAFT ELEC COUNTERMEASURE SYS TECH EA-6 IMA	9	8915	FOOD SERVICE ATTENDANT	0
6485	ADVC AIRCRAFT ELEC COUNTERMEASURE TECH IMA	0	8921	ATHLETIC AND RECREATION ASSISTANT	0
6492	AVIATION TME/ATE CALIBRATION & REPAIR TECH	41	8981	MILITARY AFFILIATE RADIO SYSTEM RADIO OPERATOR	0
6500	BASIC AVIATION ORDNANCE MARINE	3	9051	GRAVES REGISTRATION SPECIALIST	0
6511	AVIATION ORDNANCE TRAINEE	3	9011	MEMBER UNITED STATES MARINE BAND	21
6521	AVIATION ORDNANCE MUNITIONS TECHNICIAN	75	9900	BASIC MARINE GENERAL SERVICE	7
6531	AIRCRAFT ORDNANCE TECHNICIAN	96	9915	SPECIAL ASSIGNMENT-ENLISTED	0
6541	AVIATION ORDNANCE EQUIPMENT REPAIR TECHNICIAN	0	9916	BILLET DESIGNATOR-ENLISTED	0
6551	MARINE WING WEAPONS UNIT SPECIALIST	0	9917	COLLEGE DEGREE-ENLISTED	0
6591	AVIATION ORDNANCE CHIEF	0	9919	MARINE AIR GROUND TASK FORCE PLANS/OPERATIONS SPEC	0
6600	BASIC WEATHER SERVICE MARINE	0	9935	SPECIAL TECHNICAL OPERATIONS (OFFICER: 10, ENLISTED)	0
6621	WEATHER OBSERVER	33	9932	SCUBA MARINE (OFFICER/ENLISTED) (OFF: 2E)	0
6642	WEATHER FORECASTER	2	9933	PARACHUTIST/SCUBA MARINE (OFFICER: 2E/ENLISTED)	0
7000	BASIC AIRFIELD SERVICES MARINE	7	9938	GROUND SAFETY SPECIALIST (OFFICER: 4J/ENLISTED)	0
7011	AIRCRAFT RECOVERY SPECIALIST	60	9962	PARACHUTIST (OFFICER: 2E/ENLISTED)	0
7041	AVIATION OPERATION SPECIALIST	112	9971	BASIC MARINE WITH ENLISTMENT GUARANTEE	2
			9981	TACTICAL DATA SYSTEMS SPEC (OFFICER: 7E/ENLISTED)	0

APPENDIX C

HISTORICAL TABLE OF SRB MULTIPLES, BY PMOS

APPENDIX C

HISTORICAL TABLE OF SRB MULTIPLES, BY PMOS

This appendix contains two tables. Table C-1 reports historical SRB multiples for Zone A for each MOS. Time periods are grouped roughly in the table by the fiscal year of the multiple. Notes at the end of the table specify the exact periods. Additionally, the four periods during which the Marine Corps suspended SRBs are noted at the end of the table. These suspension periods are not entered as a set of zero multiples, but are hard-coded into the text of the computer program.¹

Table C-2 is a SAS frequency, by decision year, of the length of Zone A reenlistments by the level of the SRB multiple. (Note that FY 1990 is only through June 1990.)

1. See CNA Information Memorandum 127, *CNA's Longitudinal ARSTAT Tracking Files for Enlisted Marines*, by Greg W. Steadman, forthcoming.

Table C-1. Zone A bonus levels by MOS (see note at end for dates)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
0100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0121	0	1	11	10000	000000	0000	000	00	00	0000000	0000
0131	0	1	11	10100	000000	0200	011	00	00	0000000	0000
0151	0	1	11	00000	000011	0111	222	01	10	0000000	0000
0161	0	0	00	02000	000000	0001	222	01	10	0000000	2220
0193	0	1	11	11000	000000	0000	000	00	00	0000000	0000
0200	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0211	0	3	33	44433	333444	4343	333	24	44	4444444	5550
0231	0	3	33	44431	110000	0000	034	34	44	4444444	5554
0241	0	3	33	44433	333444	4432	000	00	04	4444444	5555
0251	0	3	33	44433	333444	4430	011	10	04	4444444	5555
0290	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0291	0	3	30	00000	000000	0000	000	00	00	0000000	0000
0300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0311	0	0	02	10000	000022	0112	223	02	20	0111111	0000
0312	0	0	00	00000	000002	2220	000	00	00	0000000	0000
0313	0	0	00	00000	000002	2222	223	24	44	2222222	3000
0321	0	0	00	00000	000000	0000	000	00	00	0000000	3000
0331	0	0	02	10000	000022	0112	223	02	20	0111111	0110
0341	0	0	02	10000	000022	0112	211	02	24	0111111	0000
0351	0	0	02	10010	000022	0112	200	02	20	0111111	0000
0352	0	0	02	13312	223444	4412	203	02	24	0111111	2220
0369	0	0	02	32100	000000	0000	000	00	00	0000000	0000
0400	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0411	2	3	30	02222	222333	1133	333	02	24	0000000	1000
0431	2	0	02	20000	000001	1120	002	02	24	0000000	0220
0441	2	0	01	10000	000000	0000	000	00	00	0000000	0000
0451	2	0	03	33322	222333	3333	333	02	22	1111111	2000
0481	2	3	30	00000	000000	0033	333	03	33	1111000	0000
0491	2	3	30	00000	000000	0000	000	00	00	0000000	0000
0800	0	0	00	00900	000000	0000	000	00	00	0000000	0000
0811	0	0	01	11100	000011	0112	223	12	24	0000000	0000
0842	0	0	00	00011	113555	5531	100	02	23	2222000	0000
0844	0	0	00	00011	113555	5533	300	01	10	0000000	0000
0846	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0847	0	0	01	13311	113555	5531	100	03	32	0000000	0000
0848	0	0	01	10623	333555	5543	333	00	00	0000000	0000
0849	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0861	0	0	01	10000	003555	5544	422	04	43	3333333	4000
0891	0	0	00	00000	000000	0000	000	00	00	0000000	0000
0894	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1121	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1141	0	0	00	00020	000124	4544	333	24	40	0000000	0000
1142	0	1	10	00002	122334	4544	333	24	43	4444444	4455
1161	0	0	00	00023	333334	4422	233	02	23	0000000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
1169	0	1	10	00000	000000	0020	000	00	00	0000000	0000
1171	0	1	10	00002	023334	4433	342	02	22	2222222	0000
1173	0	0	01	10000	000000	0000	000	00	00	0000000	0000
1179	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1181	0	0	00	00000	003323	3333	344	03	35	1111000	0000
1182	0	0	00	00000	000012	2331	034	03	30	0000000	0000
1183	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1316	0	0	00	00001	112333	3433	322	04	43	2222222	4444
1341	0	0	01	10000	000011	1220	000	01	11	3333333	3330
1345	0	0	00	00000	000111	1220	002	04	40	0000000	0000
1349	0	0	00	01000	000000	0000	000	00	00	0000000	0000
1371	0	0	00	00000	000112	0223	333	02	23	1111111	0000
1379	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1381	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1391	0	0	01	11030	200124	4433	242	04	42	0000000	0000
1400	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1411	0	2	21	10000	000000	0000	000	00	00	0000000	0000
1421	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1422	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1431	0	2	22	20000	000000	0000	000	00	00	0000000	0000
1432	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1441	0	2	22	23000	001100	0000	000	02	20	0000000	0000
1442	0	2	21	00002	020000	0000	000	02	20	2222444	5555
1453	0	2	20	00000	000000	0000	000	00	00	0000000	0000
1500	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1521	2	2	20	00000	000000	0000	020	02	20	0000000	0000
1522	2	0	00	00000	000000	0000	000	00	00	0000000	0000
1531	2	0	00	00000	000000	0000	000	00	00	0000000	0000
1532	2	0	01	13320	000000	0000	000	03	34	0000000	1110
1541	2	2	22	20030	300000	0000	000	00	00	0000000	0000
1542	2	0	00	00000	000000	0000	000	00	00	0000000	0000
1800	0	0	00	00000	000000	0000	000	00	00	0000000	0000
1811	0	1	11	31000	000000	0021	133	10	00	0000000	0000
1833	0	1	11	30000	001223	3331	133	02	20	0000000	0000
2100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2111	1	2	21	00001	012322	2322	200	04	40	3333333	1000
2112	1	2	22	23433	333444	4433	200	00	00	0000000	0000
2131	1	2	22	22332	222333	3433	342	04	40	1111000	0000
2141	0	0	00	00000	000000	0000	000	00	41	3333333	3000
2142	1	2	22	23311	212333	3431	000	04	40	0000000	0000
2143	0	0	00	00000	000000	0000	000	00	35	4444444	3000
2144	1	2	22	20001	112333	3323	311	03	30	0000000	0000
2145	1	2	22	20111	112333	3322	242	04	41	4444444	3344
2146	1	2	22	23433	333333	3444	445	24	40	0000000	0000
2147	1	0	00	00000	002222	2333	555	24	40	4444444	4440
2149	1	2	20	00000	000000	0000	000	00	00	0000000	0000
2161	1	2	21	16632	323333	3322	002	02	24	0000000	4440
2171	1	2	21	10223	333334	4555	543	00	43	4444400	3344
2172	1	2	22	26654	444444	4555	555	24	40	0000000	0000
2181	1	2	20	00000	000000	0000	000	00	00	0000000	0000
2191	1	2	20	00000	000000	0000	000	00	00	0000000	0000
2300	0	0	00	00000	000000	0000	000	00	00	0000000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
2311	0	1	10	00000	000000	0233	344	14	40	3333333	0000
2336	0	1	13	34433	333334	4455	555	24	44	4444444	5555
2500	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2512	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2513	0	2	23	33333	333334	4432	222	04	43	3333333	0000
2519	0	0	00	03333	333333	3330	200	03	34	4444000	5555
2531	0	0	01	00000	000000	0222	000	02	20	0000000	0000
2532	0	2	23	33330	000011	1100	000	03	33	4444000	0000
2534	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2535	0	0	00	00000	000000	0000	000	00	05	0000000	0000
2536	0	0	00	00000	000000	0000	000	00	00	4444444	5555
2537	0	0	02	03312	222222	2200	000	00	00	0000000	0000
2538	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2539	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2542	0	2	21	00000	000000	0000	011	00	00	0000000	0000
2549	0	1	13	33430	301212	2333	322	10	04	4444000	0000
2591	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2600	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2621	2	4	43	32333	335555	5533	302	04	44	4444222	2000
2622	2	4	46	63333	330000	0000	000	00	00	0000000	0000
2629	2	4	46	66655	555555	5555	554	04	44	4444000	2055
2631	2	4	46	66640	100000	0000	000	04	43	4444333	4444
2632	2	4	45	46655	555555	5555	555	04	40	0000000	0000
2639	2	0	06	60000	000000	0000	000	00	00	0000000	0000
2641	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2642	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2649	2	0	06	60000	000000	0000	000	00	00	0000000	0000
2651	2	4	43	33320	000222	2223	442	02	20	0000000	4444
2659	2	0	06	60000	000000	0000	000	00	00	0000000	0000
2670	2	0	06	00000	000000	0000	000	00	00	0000000	0000
2671	2	4	40	66655	555555	5553	300	00	05	5555555	5000
2672	2	4	46	66655	253333	3330	000	04	40	0000000	0000
2673	2	4	46	66655	553333	3333	311	04	45	5555555	5550
2674	2	4	46	66655	553333	3333	322	04	45	5555555	5000
2675	2	4	46	66655	555555	5555	522	14	45	5555555	0000
2691	2	4	40	00000	000000	0000	000	00	00	0000000	0000
2800	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2811	3	5	56	66655	555555	5533	333	04	40	1111000	0000
2813	3	5	56	63350	200002	2222	224	10	00	1111000	0244
2814	3	5	56	66650	300000	0000	000	00	00	0000000	0000
2818	3	5	56	66655	555555	5530	000	02	20	0000000	0355
2819	3	5	56	63355	555555	5555	555	24	44	2222222	0000
2822	3	5	56	63005	555555	5555	555	00	05	2222000	0000
2823	3	5	56	64455	555555	5555	555	24	44	4444444	0000
2825	3	5	55	43310	000000	0000	000	00	00	2222000	0000
2826	3	5	55	55055	555500	0000	000	00	00	0000000	0000
2827	3	5	56	66655	555555	5533	322	14	44	4444444	4444
2828	3	5	56	65650	300000	0530	003	14	40	1111000	0000
2829	3	5	56	66655	555555	5555	555	24	43	4444444	5555
2831	3	5	56	66630	200000	0000	055	24	44	4444333	4000
2833	3	5	56	66655	555555	5555	500	04	44	0000000	5555
2834	0	0	00	00000	000000	0000	000	00	05	4444444	5555
2841	3	5	56	66435	155544	4433	322	04	44	4444000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
2845	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2861	3	5	56	66605	555555	5555	555	24	44	0000000	5000
2864	3	5	50	06005	550005	5555	500	00	00	0000000	0000
2871	3	5	55	53650	000000	0534	455	04	42	4444000	0000
2874	3	5	56	66605	555555	5554	444	14	44	4444000	4444
2875	3	5	56	66655	555555	5555	533	04	40	0000000	0000
2881	3	5	55	40000	200000	0500	000	00	04	4444444	0550
2882	3	5	56	62005	555533	1000	000	04	44	4444444	0000
2884	3	5	56	63350	300000	0000	003	00	04	4444444	0000
2885	3	5	56	66655	555555	5555	555	24	43	4444444	4000
2886	3	5	56	66640	300000	0000	000	04	40	0000000	0000
2887	3	5	56	66630	003311	0110	055	24	43	4444444	4442
2888	0	0	00	00000	000000	0000	000	00	00	0000000	0000
2889	3	5	56	66605	555555	5555	533	14	40	0000000	0000
2891	3	5	50	00000	000000	0000	000	00	00	0000000	0000
3000	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3043	0	1	12	12112	122333	3330	000	02	24	2222222	1110
3044	0	1	11	32333	133333	3333	333	14	44	2222222	5555
3051	0	0	00	00000	000000	0000	000	00	04	0000000	0000
3052	0	1	10	02000	000002	2222	200	00	03	0000000	0000
3061	0	1	12	23130	100100	0000	000	04	40	1111111	2244
3072	0	1	10	00000	000111	0222	232	00	00	0000000	0000
3073	0	3	30	00000	000000	0000	020	00	01	0000000	0333
3081	0	0	00	00000	000100	0000	000	00	00	0000000	0000
3100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3111	0	2	20	00000	000000	0200	000	00	00	0000000	0000
3112	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3121	0	2	20	00000	000000	0000	000	00	00	0000000	0000
3141	0	2	20	01000	000000	0000	000	00	00	0000000	0000
3191	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3311	0	1	10	00020	100002	2222	223	12	23	0000000	0000
3371	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3372	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3381	0	1	10	00000	000012	2222	222	00	02	0000000	0000
3400	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3421	0	0	01	00000	000000	0012	220	02	20	0000000	0000
3431	0	0	01	00000	000000	0012	222	02	24	0000000	0000
3432	0	2	21	00000	000000	0000	000	00	00	0000000	0000
3441	0	2	23	33332	321222	2222	334	14	44	0000000	4000
3451	0	2	22	12101	211111	0200	000	00	04	2222222	4455
3500	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3513	0	0	00	20001	113333	3332	233	00	04	3333333	0000
3521	0	0	00	00003	133333	3444	442	02	20	0000000	0000
3522	0	0	01	01003	133333	3444	442	02	22	4444444	3344
3523	0	2	23	31003	133333	3444	442	12	22	4444444	3331
3524	0	0	00	01103	133333	3444	442	02	22	4444444	3332
3529	0	0	03	10000	000000	0004	400	00	00	0000000	0000
3531	0	0	00	00000	000000	0222	222	02	22	0000000	0000
3533	0	0	02	31000	000000	0222	222	12	23	4444444	4440
3534	0	0	02	33200	000000	0222	222	12	23	0000000	0000
3535	0	0	00	00000	000000	0000	000	00	00	0000000	0000
3537	0	0	03	10000	000000	0000	000	00	03	0000000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
4000	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4016	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4034	3	5	54	42000	000000	0022	233	14	42	0000000	0244
4038	3	5	56	63202	021111	1333	333	10	00	0000000	0000
4041	0	0	00	00000	000000	0000	003	10	03	2222000	0000
4063	3	5	56	62002	020000	0000	000	02	25	2222000	0000
4065	3	5	56	64100	000000	0000	024	10	00	0000000	0000
4069	3	5	56	66442	223333	3333	333	14	42	4444000	0000
4071	0	0	00	00000	000000	0000	000	00	04	2222000	0000
4100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4111	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4131	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4132	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4312	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4313	0	1	13	33333	333333	3333	334	13	34	4444444	3330
4321	0	1	13	33333	333333	3333	334	13	34	4444444	4444
4322	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4391	0	1	10	00000	000000	0000	000	00	00	0000000	0000
4400	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4421	2	2	20	00221	110000	0000	000	00	00	0000000	0000
4422	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4423	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4425	2	0	00	00000	000000	0020	332	13	30	0000000	0000
4429	0	2	26	66655	555555	5555	555	23	30	0000000	0000
4449	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4600	1	0	00	00000	000000	0000	000	00	00	0000000	0000
4611	1	1	10	01132	220000	0000	000	04	40	0000000	0000
4621	1	2	20	00000	000000	0000	000	00	00	0000000	0000
4631	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4641	1	0	00	00000	000000	0000	000	00	00	0000000	0000
4642	1	1	10	03333	333333	3322	222	02	23	2222222	0355
4651	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4652	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4653	1	1	11	13333	332222	2222	220	03	32	4444444	3330
4671	1	1	10	01323	332222	2322	222	13	33	1111111	1110
4672	1	2	23	36653	333333	3333	323	13	30	0000000	0000
4673	1	1	10	02003	332333	3333	300	00	00	0000000	0000
4675	0	0	00	00000	000000	0000	000	00	00	0000000	0000
4691	1	1	10	00000	000000	0000	000	00	00	0000000	0000
5500	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5519	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5521	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5523	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5526	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5528	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5534	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5536	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5537	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5541	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5543	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5544	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5546	0	0	00	00000	000000	0000	000	00	00	0000000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
5547	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5563	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5565	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5571	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5574	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5576	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5577	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5579	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5592	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5593	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5700	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5711	0	2	24	44333	333333	2222	022	11	13	4444444	5555
5800	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5811	2	3	31	00000	000000	0221	022	02	20	0000000	0000
5812	2	0	03	30000	002222	2221	022	03	30	0000000	3330
5813	2	3	32	20000	000011	1221	000	03	34	2222222	0330
5821	2	3	33	30000	003333	0222	222	12	24	4444444	4444
5822	2	3	30	06000	000000	0000	000	00	00	0000000	0000
5831	2	0	00	00000	100001	1222	222	11	12	0000000	0000
5832	2	3	31	10000	100000	0000	000	00	00	0000000	0000
5900	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5921	4	6	66	65655	555555	5535	500	00	04	3333000	0000
5922	4	6	66	55655	555555	5535	500	00	04	2333000	0000
5923	4	6	66	65655	555555	5535	500	00	04	0000000	0000
5924	4	6	66	66655	555555	5535	533	04	44	2222000	5000
5925	4	6	66	66655	555555	5555	555	24	44	4444000	4000
5926	4	6	66	66655	555555	5555	555	24	40	0000000	0000
5927	4	6	66	66655	555555	5555	555	24	44	4444000	0000
5928	4	6	66	66655	555555	5555	555	20	04	0000000	0000
5929	4	6	66	50655	455555	5533	333	00	04	0000000	0000
5936	0	0	00	00000	000000	0000	000	00	00	0000000	0000
5937	4	6	66	65555	555555	5555	555	04	44	0000000	0000
5938	4	6	66	64000	000000	0000	000	04	44	2222222	5555
5939	4	6	66	66655	555555	5553	532	00	04	4444444	0000
5942	4	6	66	66655	555555	5550	035	04	44	2222000	0000
5943	4	6	66	64600	000005	5530	003	14	44	4444444	0000
5944	4	6	66	44655	155555	5554	430	04	44	4444444	5555
5945	4	6	66	66645	455555	5534	533	04	44	4444444	0220
5947	4	6	66	66655	555555	5555	500	04	44	4444000	0000
5948	4	6	66	66655	555555	5555	555	24	44	4444000	5000
5952	4	6	66	42050	000000	0000	000	04	44	0000000	0000
5953	4	6	66	66655	055555	5555	555	24	44	4444444	0000
5954	4	6	66	62250	000000	0000	000	04	44	3333000	0000
5955	4	6	64	30050	000000	0000	000	00	00	0000000	0000
5956	4	6	66	50050	000000	0000	000	00	00	0000000	0000
5957	4	6	66	65250	000000	0000	000	00	00	0000000	0000
5958	4	6	66	60050	000000	0000	000	00	00	0000000	0000
5959	4	6	60	00000	000000	0000	000	00	00	0000000	0000
5962	4	6	66	60005	055555	3335	553	14	44	0000000	0000
5963	4	6	66	40005	055555	3325	553	04	44	4444444	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
5964	4	6	66	60025	455555	5555	555	24	44	4444000	0000
5974	4	6	66	66655	555555	5555	555	04	44	0000000	0000
5977	4	6	66	66655	555555	5555	555	24	44	4444444	0000
5978	4	6	66	66655	555555	5555	555	24	44	4444000	0000
5979	4	6	66	66655	555555	5555	555	24	44	4444000	5000
5982	4	6	66	66635	555500	0530	003	04	44	4444444	5554
5993	4	0	00	00000	000000	0000	000	00	00	0000000	0000
5994	4	0	00	00000	000000	0000	000	00	00	0000000	0000
6000	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6011	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6012	0	1	10	01002	024444	4420	000	02	20	0000000	4000
6013	0	1	10	01002	024444	4442	220	02	22	0000000	0000
6014	0	1	13	31002	024444	4420	030	02	20	0000000	0000
6015	0	1	10	01002	024444	4422	221	03	33	3333333	0000
6016	0	0	00	01002	024444	4420	003	12	24	4444444	4422
6017	0	1	13	31002	024444	4442	231	04	40	1111000	0000
6018	0	0	03	31002	020000	0000	002	04	44	4444333	4455
6019	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6022	0	1	10	01000	000004	4430	022	03	33	0000000	0000
6023	0	0	03	31003	034444	4432	222	02	22	3333000	0355
6024	0	1	13	31000	003344	4430	022	04	44	0000000	0000
6025	0	0	02	21003	033334	4432	200	02	24	4444444	5442
6026	0	1	13	31000	000000	0032	223	03	34	0000000	0055
6027	0	1	13	31003	034444	4432	233	04	44	4444444	5555
6028	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6031	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6032	0	1	13	33335	555555	5555	555	24	44	3333000	0000
6035	0	1	10	36655	553311	0111	003	04	44	4444444	5555
6036	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6038	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6041	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6042	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6044	0	1	11	14655	555555	5555	444	14	44	4444000	0355
6046	0	1	12	22232	224444	4433	344	10	05	4444222	4220
6047	0	1	13	33454	544444	4443	334	13	35	4444444	5555
6051	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6052	0	1	10	01000	002234	4420	000	04	40	0000000	0000
6053	0	1	10	01000	002334	4420	000	03	34	1111111	0000
6054	0	0	03	30000	002255	4420	000	04	43	0000000	0000
6055	0	1	10	01001	010234	4430	000	04	43	4444444	5550
6056	0	0	02	00000	000000	0000	055	24	43	4444444	5000
6057	0	1	10	01003	035555	4440	000	04	43	4444444	0440
6058	0	1	11	11000	000000	0000	003	04	44	4444222	0000
6059	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6060	0	1	11	12101	014444	4543	344	04	44	4444444	4444
6061	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6062	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6064	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6067	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6071	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6072	0	1	13	32222	323333	3443	332	04	44	2222000	0000
6073	0	0	00	00000	000000	0000	000	00	00	2222000	0000
6075	0	1	13	30100	002233	3443	332	04	42	2222222	0220

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
6076	0	1	13	30213	334444	4420	033	03	33	0000000	0000
6077	0	1	13	32220	000222	2420	033	04	42	0000000	0000
6078	0	1	13	33300	000012	2423	333	04	44	0000000	0000
6079	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6081	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6082	0	0	03	30000	000000	0002	212	14	40	0000000	5000
6083	0	1	13	30003	032335	5420	000	04	43	1111000	0000
6084	0	1	13	30000	000055	5420	000	04	43	0000000	0000
6085	0	1	13	30000	000005	5420	000	02	24	3333000	0000
6086	0	0	00	00000	003335	5420	002	00	00	2222222	0000
6087	0	1	10	00003	033355	5440	021	04	43	2222000	0000
6088	0	1	11	10000	003315	5420	000	00	05	2222000	0220
6089	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6090	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6091	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6092	0	1	10	00000	003334	4530	000	03	30	2222222	4000
6093	0	1	11	10000	003344	4530	000	04	44	4444444	5553
6094	0	1	10	00000	003344	4530	000	01	13	0000000	0000
6095	0	1	10	00000	000014	4530	000	00	05	4444444	4442
6096	0	1	11	00000	000114	4530	003	14	44	4444444	5000
6097	0	1	13	30003	033444	4540	004	13	33	4444333	0440
6098	0	1	11	00000	003324	4542	200	04	45	4444444	5550
6100	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6111	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6112	2	0	00	00122	120000	0000	000	04	40	1111000	4000
6113	2	0	00	00122	120211	1530	000	04	40	1111111	4000
6114	2	0	00	01322	123333	3533	320	02	21	4444444	4000
6115	2	3	30	01132	125555	5544	400	00	02	0000000	4000
6119	2	0	00	00000	000000	0000	000	00	00	0000000	0000
6122	2	3	33	31104	444444	4444	400	02	23	0000000	4000
6123	2	3	33	31104	444444	4444	400	01	12	0000000	0000
6124	2	0	00	01104	444444	4444	400	00	00	0000000	0000
6125	2	3	33	31104	440000	0000	000	00	03	3333333	4440
6132	2	0	00	00113	431222	2210	000	02	20	0000000	0000
6135	2	3	30	34445	555555	5544	444	14	45	0000000	0000
6142	2	3	31	00000	000000	0220	000	04	43	3333333	4000
6143	2	3	33	30000	000222	2220	022	02	23	3333333	4455
6144	2	3	30	00000	000222	2220	000	04	43	4444444	4455
6152	2	3	30	01103	330000	0430	000	04	44	3333333	4440
6153	2	0	01	10003	335555	5430	023	04	40	0000000	0000
6154	2	0	00	01103	331222	2420	003	14	44	4444444	4455
6155	2	3	30	01103	335555	5423	300	00	00	0000000	0000
6159	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6172	0	0	00	00000	000000	0000	000	00	00	0002000	4440
6173	0	0	00	00000	000000	0000	000	00	00	0002000	4442
6174	0	0	00	00000	000000	0000	000	00	00	0002044	4440
6175	0	0	00	00000	000000	0000	000	00	00	0002000	4444
6300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6311	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6312	2	2	23	34334	442344	2244	000	04	40	0000000	0000
6313	2	2	23	14334	442222	1530	000	01	10	0000000	0000
6314	2	2	26	64334	442255	5530	000	04	44	0000000	5000
6315	2	2	20	04334	442222	2530	000	00	00	2222220	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
6316	2	2	20	04334	445555	5530	000	02	24	4444444	5000
6317	2	2	26	64334	445555	5542	200	00	00	4444444	0000
6318	0	0	00	00000	000000	0000	000	00	00	0000002	3000
6322	2	2	23	35655	552222	2530	023	14	44	0000000	0000
6323	2	2	23	35655	554444	3530	000	04	44	2222222	0000
6324	2	2	23	35655	554444	3530	000	00	04	4444443	5555
6331	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6332	2	2	20	02204	243355	5554	000	02	20	0000000	0000
6333	2	2	23	32204	243335	5530	000	02	24	3333333	0000
6334	2	2	26	62204	243355	5554	254	02	20	0000000	0000
6335	2	2	20	02204	243355	5544	000	01	14	2222222	0000
6336	2	0	01	10004	243335	5530	000	00	04	4444444	0110
6337	2	2	26	62204	244555	5554	400	00	00	0000000	0000
6342	2	2	21	13454	545555	5540	020	02	23	0000000	0000
6343	2	2	21	13454	545555	5540	002	03	33	0000000	0000
6344	2	2	23	33454	542222	2530	000	04	44	4444444	0000
6345	2	0	00	03454	542222	2555	533	00	00	0000000	0000
6351	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6352	2	2	23	35655	553333	3333	335	20	00	4444444	5000
6353	2	2	23	35655	555555	5554	302	02	24	0000000	0000
6354	2	2	23	35655	553355	5530	000	02	24	0000000	0000
6355	2	2	20	05655	555555	5533	302	01	14	0000000	0000
6357	2	2	23	35655	555555	5543	300	00	00	0000000	0000
6359	2	2	23	35655	555555	5555	500	00	00	0000000	0000
6362	2	2	20	02055	555555	5530	000	00	00	0000000	0000
6363	2	2	23	33355	555555	5530	000	02	20	0000000	0000
6364	2	2	22	20005	555555	5555	531	01	14	4444444	0000
6365	2	2	23	20003	033333	3530	000	01	10	4444444	0000
6367	2	2	23	36655	553555	5555	555	00	01	0000000	0000
6371	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6372	2	2	23	33335	554444	4420	000	00	01	4444444	0000
6374	2	2	23	33335	253311	1000	033	04	44	4444444	5000
6386	2	2	23	30000	100000	0000	000	01	10	0000000	0000
6391	2	0	00	00000	000000	0000	000	00	00	0000000	0000
6400	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6412	2	2	23	34654	543311	0000	000	00	20	0000000	0330
6413	2	2	23	34654	544444	4433	333	02	20	0000000	0000
6414	2	2	23	33324	544444	4430	000	00	40	0000000	0000
6415	2	2	23	36654	543333	2000	002	00	00	0000000	0000
6416	2	2	23	35554	545555	5540	000	00	00	0000000	0000
6422	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6423	0	0	00	00000	000000	0000	000	00	04	4444444	5555
6432	2	2	22	26655	555555	5554	231	02	40	0000000	0000
6433	2	2	23	35655	555555	5554	330	03	30	0000000	0000
6434	2	2	23	34232	224444	4040	000	04	40	0000000	0000
6435	2	2	23	34335	555555	5542	200	02	20	0000000	0000
6442	2	2	23	30000	000000	0000	003	02	20	0000000	0000
6443	2	2	23	33100	003311	1021	100	00	00	0000000	0000
6444	2	0	03	30020	003333	3120	000	00	00	0000000	0000
6445	2	2	23	34300	003333	2220	000	03	30	0000000	0000
6446	2	0	03	30002	223333	2232	000	00	00	0000000	0000
6452	2	2	21	00025	555544	4443	200	04	40	0000000	0000
6453	2	2	21	10035	555544	4430	000	03	30	0000000	0000

Table C-1. (Continued)

MOS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
6454	2	2	21	13005	555544	3310	000	00	00	0000000	0000
6455	2	0	02	10000	003333	2000	000	04	40	0000000	0000
6462	2	2	20	06605	055555	5555	555	24	44	4444444	5000
6463	2	0	00	00005	555555	5555	555	24	44	4444444	5553
6464	2	0	00	00000	005555	5555	555	24	42	4444444	5550
6465	2	2	22	26635	555555	5555	555	24	44	4444444	5555
6466	0	0	00	00000	000000	0000	000	00	34	2222000	0000
6467	0	0	00	00000	000000	0000	000	00	30	0000000	0000
6468	0	0	00	00000	000000	0000	000	00	05	4444444	3330
6469	0	0	00	00000	000000	0000	000	00	40	0000000	0000
6472	2	0	00	00135	455555	5552	000	00	00	0000000	0000
6473	2	0	00	00000	000000	0000	000	00	00	0000000	0000
6474	2	0	03	30123	134422	2000	030	04	40	0000000	0000
6475	2	2	21	11105	555533	2000	000	02	20	4444444	0000
6476	2	0	00	00015	555555	5555	555	22	20	4444444	0000
6477	2	2	22	16655	555555	5555	512	03	30	0000000	0000
6478	0	0	00	00000	000000	0000	000	00	40	0000000	0000
6482	2	2	23	36205	555555	5555	522	04	40	2222000	0000
6483	0	0	00	00000	000000	0000	000	00	45	4444444	5555
6484	0	0	00	00000	000000	0000	000	00	40	0000000	0000
6485	0	0	00	00000	000000	0000	000	00	40	0000000	0000
6492	2	2	23	35524	545544	3441	122	00	00	4444444	5555
6493	2	2	23	36655	555555	5444	420	00	00	0000000	0000
6500	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6511	3	0	00	00000	000000	0000	000	00	00	0000000	0000
6521	3	3	33	30000	004444	4444	444	14	43	3333333	4000
6531	3	3	30	00054	544444	4440	000	04	45	3333333	4440
6532	3	0	03	36654	542224	4420	000	02	20	0000000	0000
6533	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6534	3	0	01	16554	544444	4420	000	04	40	0000000	0000
6535	3	0	02	23654	542455	5533	300	00	00	0000000	0000
6536	3	0	03	36654	545555	5532	200	03	30	0000000	0000
6537	3	0	03	36554	545555	5543	333	02	20	0000000	0000
6538	3	0	03	32400	000000	0000	000	00	00	0000000	0000
6541	3	0	03	33653	535555	5442	233	04	45	0000000	0000
6542	3	0	03	34653	535555	5430	005	02	20	0000000	0000
6591	3	0	00	00000	000000	0000	000	00	00	0000000	0000
6800	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6821	0	0	03	33323	431100	0000	000	02	20	3333333	0000
6822	0	0	03	33103	430000	0000	000	02	20	0000000	0000
6831	0	0	00	00000	000000	0000	000	00	00	0000000	0000
6842	0	0	00	00033	530000	0000	000	00	00	0000000	0000
7000	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7011	0	0	00	00000	001111	1100	000	00	03	2222000	4000
7041	0	0	00	00112	224444	4444	444	01	14	0000000	4440
7051	0	0	01	10001	012222	2333	344	12	23	0000000	0000
7200	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7212	3	4	45	53654	544444	4420	002	12	24	4444444	0000
7221	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7222	3	4	45	56655	555555	5500	000	00	02	4444222	0000
7231	3	0	00	00000	000000	0000	000	00	00	0000000	0000
7234	3	4	41	14450	300000	0002	200	04	44	0000000	0000
7236	3	4	45	54455	354444	4544	444	14	43	4444444	5550

Table C-1. (Continued)

MCS	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
7239	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7241	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7242	3	4	41	13455	553333	3100	002	04	44	0000000	0000
7300	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7311	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7312	4	6	66	66655	555555	5544	444	14	44	4444444	5555
7322	4	6	66	66655	555555	4530	000	04	43	4444444	5555
7324	4	0	06	60000	000000	0000	000	00	00	0000000	0000
7371	4	4	46	60000	000000	0000	000	00	00	0000000	0000
7372	4	6	66	66555	355555	4322	200	00	05	4444444	5555
7381	0	0	00	00000	000000	0000	000	00	00	0000000	0000
7382	4	0	03	02115	555555	5533	222	00	04	4444444	5555
9811	0	0	00	00000	000000	0000	000	00	00	0000000	0000
9900	0	0	00	00000	000000	0000	000	00	00	0000000	0000
9971	0	0	00	00000	000000	0000	000	00	00	0000000	0000
9991	0	0	00	00000	000000	0000	000	00	00	0000000	0000
9999	0	0	00	00000	000000	0000	000	00	00	0000000	0000

NOTE: Time periods for SRB levels (divided as above roughly within the fiscal years) are as follows:

FY 1980 791001 to 800530
FY 1981 800531 to 810214
FY 1982 810215 to 811001
811002 to 820214
FY 1983 820215 to 821101
821102 to 821215
821216 to 830220
830301 to 830430
830501 to 830914
FY 1984 830915 to 831130
831201 to 840131
840201 to 840331
840401 to 840630
840701 to 840731
840801 to 840914
FY 1985 840915 to 841031
841101 to 850131
850201 to 850414
850415 to 850716
FY 1986 850717 to 851216
851217 to 860430
860501 to 860831
FY 1987 860901 to 861207
861208 to 870514
FY 1988 870515 to 880131
880201 to 881120

FY 1989 881121 to 890209
890210 to 890312
890313 to 890531
890601 to 890630
890701 to 890706
890707 to 890814
890815 to 890930
FY 1990 890931 to 900207
900208 to 900503
900504 to 900603
900604 to 900930

The SRB program was suspended, because the Marine Corps ran out of funds, between the following dates:

820702 to 820910
830601 to 830811
841001 to 841019
851001 to 851114
870615 to 870930
880715 to 880930

Table C-2. SAS listing of reenlistment length, by SRB level

DEC_FY=80

SRB LEVEL	REEN LENGTH					
FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	82 1.49 1.91 89.13	1797 32.58 41.80 86.85	2037 36.93 47.38 79.76	74 1.34 1.72 44.58	309 5.60 7.19 48.66	4299 77.94
1	9 0.16 2.00 9.78	189 3.43 41.91 9.13	198 3.59 43.90 7.75	10 0.18 2.22 6.02	45 0.82 9.98 7.09	451 8.18
2	0 0.00 0.00 0.00	61 1.11 17.23 2.95	168 3.05 47.46 6.58	29 0.53 8.19 17.47	96 1.74 27.12 15.12	354 6.42
3	1 0.02 0.40 1.09	14 0.25 5.56 0.68	94 1.70 37.30 3.68	22 0.40 8.73 13.25	121 2.19 48.02 19.06	252 4.57
4	0 0.00 0.00 0.00	6 0.11 7.14 0.29	28 0.51 33.33 1.10	21 0.38 25.00 12.65	29 0.53 34.52 4.57	84 1.52
5	0 0.00 0.00 0.00	1 0.02 2.56 0.05	14 0.25 35.90 0.55	3 0.05 7.69 1.81	21 0.38 53.85 3.31	39 0.71
6	0 0.00 0.00 0.00	1 0.02 2.70 0.05	15 0.27 40.54 0.59	7 0.13 18.92 4.22	14 0.25 37.84 2.20	37 0.67
TOTAL	92 1.67	2069 37.51	2554 46.30	166 3.01	635 11.51	5516 100.00

Table C-2. (Continued)

DEC_FY=81

SRB LEVEL		REEN LENGTH					
FREQUENCY PERCENT ROW PCT COL PCT		2	3	4	5	6	TOTAL
0	57 0.76 1.51 79.17	1571 20.83 41.63 67.51	1468 19.46 38.90 46.56	120 1.59 3.18 24.90	558 7.40 14.79 36.98	3774 50.03	
1	9 0.12 0.51 12.50	495 6.56 28.13 21.27	839 11.12 47.67 26.61	75 0.99 4.26 15.56	342 4.53 19.43 22.66	1760 23.33	
2	5 0.07 0.59 6.94	138 1.83 16.41 5.93	376 4.98 44.71 11.93	59 0.78 7.02 12.24	263 3.49 31.27 17.43	841 11.15	
3	1 0.01 0.21 1.39	54 0.72 11.13 2.32	144 1.91 29.69 4.57	33 0.44 6.80 6.85	253 3.35 52.16 16.77	485 6.43	
4	0 0.00 0.00 0.00	9 0.12 7.09 0.39	58 0.77 45.67 1.84	20 0.27 15.75 4.15	40 0.53 31.50 2.65	127 1.68	
5	0 0.00 0.00 0.00	32 0.42 8.96 1.38	161 2.13 45.10 5.11	117 1.55 32.77 24.27	47 0.62 13.17 3.11	357 4.73	
6	0 0.00 0.00 0.00	28 0.37 14.07 1.20	107 1.42 53.77 3.39	58 0.77 29.15 12.03	6 0.08 3.02 0.40	199 2.64	
TOTAL	72 0.95	2327 30.85	3153 41.80	482 6.39	1509 20.01	7543 100.00	

Table C-2. (Continued)

DEC_FY=82

SRB LEVEL		REEN LENGTH					
FREQUENCY PERCENT ROW PCT COL PCT		2	3	4	5	6	TOTAL
0		48	1166	943	65	266	2488
		0.68	16.41	13.27	0.91	3.74	35.01
		1.93	46.86	37.90	2.61	10.69	
		63.16	52.15	30.16	17.02	20.70	
1		12	663	1021	75	255	2026
		0.17	9.33	14.37	1.06	3.59	28.51
		0.59	32.72	50.39	3.70	12.59	
		15.79	29.65	32.65	19.63	19.84	
2		9	251	412	40	244	956
		0.13	3.53	5.80	0.56	3.43	13.45
		0.94	26.26	43.10	4.18	25.52	
		11.84	11.23	13.18	10.47	18.99	
3		7	94	348	76	469	994
		0.10	1.32	4.90	1.07	6.60	13.99
		0.70	9.46	35.01	7.65	47.18	
		9.21	4.20	11.13	19.90	36.50	
4		0	8	49	31	37	125
		0.00	0.11	0.69	0.44	0.52	1.76
		0.00	6.40	39.20	24.80	29.60	
		0.00	0.36	1.57	8.12	2.88	
5		0	5	30	22	5	62
		0.00	0.07	0.42	0.31	0.07	0.87
		0.00	8.06	48.39	35.48	8.06	
		0.00	0.22	0.96	5.76	0.39	
6		0	49	324	73	9	455
		0.00	0.69	4.56	1.03	0.13	6.40
		0.00	10.77	71.21	16.04	1.98	
		0.00	2.19	10.36	19.11	0.70	
TOTAL		76	2236	3127	382	1285	7106
		1.07	31.47	44.01	5.38	18.08	100.00

Table C-2. (Continued)

DEC_FY=83

SRB REEN LENGTH
LEVEL

FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	200 2.66 5.11 87.72	1530 20.33 39.10 75.18	1825 24.26 46.64 47.91	79 1.05 2.02 16.95	279 3.71 7.13 28.30	3913 52.01
1	11 0.15 1.20 4.82	201 2.67 21.85 9.88	521 6.92 56.63 13.68	42 0.56 4.57 9.01	145 1.93 15.76 14.71	920 12.23
2	9 0.12 1.28 3.95	94 1.25 13.33 4.62	383 5.09 54.33 10.06	54 0.72 7.66 11.59	165 2.19 23.40 16.73	705 9.37
3	7 0.09 0.74 3.07	102 1.36 10.73 5.01	386 5.13 40.59 10.13	119 1.58 12.51 25.54	337 4.48 35.44 34.18	951 12.64
4	0 0.00 0.00 0.00	15 0.20 6.94 0.74	95 1.26 43.98 2.49	68 0.90 31.48 14.59	38 0.51 17.59 3.85	216 2.87
5	1 0.01 0.33 0.44	24 0.32 7.89 1.18	212 2.82 69.74 5.57	60 0.80 19.74 12.88	7 0.09 2.30 0.71	304 4.04
6	0 0.00 0.00 0.00	69 0.92 13.40 3.39	387 5.14 75.15 10.16	44 0.58 8.54 9.44	15 0.20 2.91 1.52	515 6.84
TOTAL	228 3.03	2035 27.05	3809 50.62	466 6.19	986 13.10	7524 100.00

Table C-2. (Continued)

DEC_FY=84

SRB
LEVEL REEN LENGTH

FREQUENCY PERCENT ROW PCT COL PCT						TOTAL
	2	3	4	5	6	
0	193 2.03 4.86 78.46	1386 14.60 34.91 94.61	2191 23.08 55.19 38.99	55 0.58 1.39 5.99	145 1.53 3.65 11.66	3970 41.82
1	18 0.19 1.99 7.32	29 0.31 3.20 1.98	682 7.18 75.28 12.14	47 0.50 5.19 5.12	130 1.37 14.35 10.45	906 9.54
2	18 0.19 1.14 7.32	33 0.35 2.08 2.25	1006 10.60 63.51 17.90	106 1.12 6.69 11.55	421 4.43 26.58 33.84	1584 16.69
3	11 0.12 0.90 4.47	15 0.16 1.23 1.02	690 7.27 56.74 12.28	149 1.57 12.25 16.23	351 3.70 28.87 28.22	1216 12.81
4	4 0.04 0.47 1.63	0 0.00 0.00 0.00	422 4.45 49.18 7.51	267 2.81 31.12 29.08	165 1.74 19.23 13.26	858 9.04
5	2 0.02 0.21 0.81	2 0.02 0.21 0.14	629 6.63 65.59 11.19	294 3.10 30.66 32.03	32 0.34 3.34 2.57	959 10.10
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	246 2.59	1465 15.43	5620 59.20	918 9.67	1244 13.10	9493 100.00

Table C-2. (Continued)

DEC_FY=85

SRB
LEVEL REEN LENGTH

FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	53 0.65 3.97 51.46	576 7.01 43.18 72.27	635 7.73 47.60 16.06	20 0.24 1.50 1.86	50 0.61 3.75 2.18	1334 16.23
1	12 0.15 1.47 11.65	63 0.77 7.72 7.90	555 6.75 68.01 14.04	59 0.72 7.23 5.49	127 1.55 15.56 5.55	816 9.93
2	29 0.35 0.88 28.16	142 1.73 4.31 17.82	1673 20.36 50.77 42.31	301 3.66 9.14 28.03	1150 14.00 34.90 50.24	3295 40.10
3	7 0.09 0.65 6.80	12 0.15 1.12 1.51	427 5.20 39.87 10.80	151 1.84 14.10 14.06	474 5.77 44.26 20.71	1071 13.03
4	2 0.02 0.19 1.94	2 0.02 0.19 0.25	344 4.19 32.61 8.70	293 3.57 27.77 27.28	414 5.04 39.24 18.09	1055 12.84
5	0 0.00 0.00 0.00	2 0.02 0.31 0.25	320 3.89 49.54 8.09	250 3.04 38.70 23.28	74 0.90 11.46 3.23	646 7.86
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	103 1.25	797 9.70	3954 48.12	1074 13.07	2289 27.86	8217 100.00

Table C-2. (Continued)

DEC_FY=86

SRB REEN LENGTH
LEVEL

FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	179 1.93 6.27 83.26	1083 11.65 37.92 91.94	1142 12.29 39.99 26.23	97 1.04 3.40 11.98	355 3.82 12.43 12.98	2856 30.73
1	5 0.05 1.07 2.33	24 0.26 5.15 2.04	314 3.38 67.38 7.21	34 0.37 7.30 4.20	89 0.96 19.10 3.25	466 5.01
2	17 0.18 0.60 7.91	57 0.61 2.02 4.84	1505 16.19 53.46 34.57	300 3.23 10.66 37.04	936 10.07 33.25 34.21	2815 30.29
3	13 0.14 0.60 6.05	13 0.14 0.60 1.10	1024 11.02 47.17 23.52	238 2.56 10.96 29.38	883 9.50 40.67 32.27	2171 23.36
4	1 0.01 0.13 0.47	1 0.01 0.13 0.08	302 3.25 40.59 6.94	89 0.96 11.96 10.99	351 3.78 47.18 12.83	744 8.01
5	0 0.00 0.00 0.00	0 0.00 0.00 0.00	67 0.72 27.80 1.54	52 0.56 21.58 6.42	122 1.31 50.62 4.46	241 2.59
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	215 2.31	1178 12.68	4354 46.85	810 8.72	2736 29.44	9293 100.00

Table C-2. (Continued)

DEC_FY=87

SRB
LEVEL REEN LENGTH

FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	176 2.32 5.65 78.92	569 7.52 18.26 91.04	1468 19.39 47.11 38.02	163 2.15 5.23 27.53	740 9.77 23.75 32.60	3116 41.16
1	13 0.17 3.59 5.83	17 0.22 4.70 2.72	212 2.80 58.56 5.49	26 0.34 7.18 4.39	94 1.24 25.97 4.14	362 4.78
2	28 0.37 1.13 12.56	29 0.38 1.17 4.64	1529 20.20 61.85 39.60	226 2.99 9.14 38.18	660 8.72 26.70 29.07	2472 32.65
3	4 0.05 2.03 1.79	2 0.03 1.02 0.32	89 1.18 45.18 2.31	25 0.33 12.69 4.22	77 1.02 39.09 3.39	197 2.60
4	2 0.03 0.14 0.90	8 0.11 0.56 1.28	563 7.44 39.54 14.58	152 2.01 10.67 25.68	699 9.23 49.09 30.79	1424 18.81
5	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00
6	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00
TOTAL	223 2.95	625 8.26	3861 51.00	592 7.82	2270 29.98	7571 100.00

Table C-2. (Continued)

DEC_FY=88

SRB LEVEL	REEN LENGTH					TOTAL
	2	3	4	5	6	
FREQUENCY						
PERCENT						
ROW PCT						
COL PCT						
0	165 2.94 10.99 63.95	598 10.66 39.81 89.12	654 11.66 43.54 20.30	19 0.34 1.26 7.79	66 1.18 4.39 5.44	1502 26.78
1	7 0.12 2.25 2.71	20 0.36 6.43 2.98	237 4.23 76.21 7.36	11 0.20 3.54 4.51	36 0.64 11.58 2.97	311 5.55
2	42 0.75 2.89 16.28	35 0.62 2.41 5.22	1001 17.85 68.84 31.07	67 1.19 4.61 27.46	309 5.51 21.25 25.47	1454 25.93
3	15 0.27 3.03 5.81	5 0.09 1.01 0.75	312 5.56 63.03 9.68	35 0.62 7.07 14.34	128 2.28 25.86 10.55	495 8.83
4	27 0.48 1.63 10.47	13 0.23 0.78 1.94	928 16.55 55.87 28.80	97 1.73 5.84 39.75	596 10.63 35.88 49.13	1661 29.62
5	2 0.04 1.08 0.78	0 0.00 0.00 0.00	90 1.60 48.65 2.79	15 0.27 8.11 6.15	78 1.39 42.16 6.43	185 3.30
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	258 4.60	671 11.97	3222 57.45	244 4.35	1213 21.63	5608 100.00

Table C-2. (Continued)

DEC_FY=89

SRB LEVEL	REEN LENGTH					
FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	199 4.07 7.29 81.89	1091 22.29 39.96 96.12	1372 28.03 50.26 44.65	5 0.10 0.18 6.41	63 1.29 2.31 17.21	2730 55.77
1	17 0.35 3.31 7.00	31 0.63 6.04 2.73	436 8.91 84.99 14.19	2 0.04 0.39 2.56	27 0.55 5.26 7.38	513 10.48
2	12 0.25 3.14 4.94	5 0.10 1.31 0.44	298 6.09 78.01 9.70	17 0.35 4.45 21.79	50 1.02 13.09 13.66	382 7.80
3	9 0.18 2.21 3.70	4 0.08 0.98 0.35	339 6.93 83.09 11.03	17 0.35 4.17 21.79	39 0.80 9.56 10.66	408 8.34
4	6 0.12 0.71 2.47	4 0.08 0.48 0.35	618 12.63 73.40 20.11	37 0.76 4.39 47.44	177 3.62 21.02 48.36	842 17.20
5	0 0.00 0.00 0.00	0 0.00 0.00 0.00	10 0.20 50.00 0.33	0 0.00 0.00 0.00	10 0.20 50.00 2.73	20 0.41
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	243 4.96	1135 23.19	3073 62.78	78 1.59	366 7.48	4895 100.00

Table C-2. (Continued)

DEC_FY=90 (NOTE: INCLUDES ONLY DECISIONS THROUGH JUNE 1990)

SRB REEN LENGTH
LEVEL

FREQUENCY PERCENT ROW PCT COL PCT	2	3	4	5	6	TOTAL
0	93 2.62 3.67 93.00	1322 37.31 52.13 97.71	1086 30.65 42.82 59.80	6 0.17 0.24 10.71	29 0.82 1.14 13.30	2536 71.58
1	2 0.06 1.45 2.00	16 0.45 11.59 1.18	116 3.27 84.06 6.39	3 0.08 2.17 5.36	1 0.03 0.72 0.46	138 3.90
2	0 0.00 0.00 0.00	5 0.14 5.26 0.37	77 2.17 81.05 4.24	1 0.03 1.05 1.79	12 0.34 12.63 5.50	95 2.68
3	1 0.03 0.65 1.00	3 0.08 1.96 0.22	119 3.36 77.78 6.55	10 0.28 6.54 17.86	20 0.56 13.07 9.17	153 4.32
4	4 0.11 0.91 4.00	3 0.08 0.68 0.22	325 9.17 74.20 17.90	16 0.45 3.65 28.57	90 2.54 20.55 41.28	438 12.36
5	0 0.00 0.00 0.00	4 0.11 2.19 0.30	93 2.62 50.82 5.12	20 0.56 10.93 35.71	66 1.86 36.07 30.28	183 5.17
6	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00
TOTAL	100 2.82	1353 38.19	1816 51.26	56 1.58	218 6.15	3543 100.00

APPENDIX D

THE LOGIT EQUATION

APPENDIX D

THE LOGIT EQUATION

The following is a more complete discussion of the logit equation used to estimate the probability of reenlistment in the Marine Corps.

$$P(\text{reenlist}) = (1 + e^{-B'X})^{-1} ,$$

where P is the probability, B' is a row vector of coefficients, and X is a column vector of variables. Figure 7 in the main text shows an example of a logit curve.

The partial derivative of the logit function at the mean of the function is as follows:

$$\frac{\partial P}{\partial x_i} = (\bar{P})(1 - \bar{P})B_i ,$$

where i is the i th variable and \bar{P} is the sample mean or proportion. The following equations illustrate this result:

$$P = (1 + e^{-B'X})^{-1} ;$$

$$1 - P = (e^{-B'X})(1 + e^{-B'X})^{-1} ;$$

$$\frac{\partial P}{\partial x_i} = - (1 + e^{-B'X})^{-2} (-B_i e^{-B'X}) ,$$

$$= (1 + e^{-B'X})^{-1} \frac{(B_i)(e^{-B'X})}{(1 + e^{-B'X})} ,$$

$$= P(B_i)(1 - P) ,$$

$$= B_i(P)(1 - P) .$$

APPENDIX E

**LOGIT REENLISTMENT EQUATION ESTIMATES WITH SEPARATE
INDICATOR VARIABLES FOR EACH SRB LEVEL**

Table E-1. Logit coefficients and derivatives for reenlistment decisions, FY 1980 through FY 1990

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
SRB1	.098	.384** (7.32)	.084	.349** (6.81)	.077
SRB2	.166	.701** (15.74)	.154	.729** (17.20)	.160
SRB3	.080	.927** (16.59)	.203	.970** (17.81)	.213
SRB4	.069	1.253** (20.36)	.275	1.193** (19.82)	.261
SRB5	.023	1.345** (13.84)	.295	1.378** (14.39)	.302
SRB6	.008	1.718** (11.18)	.376	1.601** (10.48)	.351
SRB_AFQT12	.110	.157* (2.22)	.034	.134* (1.91)	.029
AFQT12	.227	-.207** (-3.74)	-.045	-.177** (-3.20)	-.039
Cpl	.588	.649** (16.28)	.142	.645** (16.32)	.141
Sgt	.179	.975** (18.75)	.214	.984** (19.14)	.216
SSgt	.003	2.142** (7.71)	.469	2.152** (7.83)	.472
Married or dependents	.380	.827** (28.32)	.181	.830** (28.61)	.182
Pay index	1.167	No	--	2.563** (7.87)	.562
Civilian unemployment	.116	No	--	2.795** (4.40)	.612

Table E-1. (Continued)

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
Length of first contract	3.807	.100** (2.92)	.022	.078* (2.34)	.017
Prior extension	.110	.439** (9.77)	.096	.454** (10.18)	.100
Male	.952	-.228** (-3.50)	-.050	-.235** (-3.62)	-.052
HSDG	.844	-.109** (-2.71)	-.024	-.114** (-2.85)	-.025
Black	.180	1.074** (28.86)	.235	1.069** (28.95)	.234
Hispanic	.057	.142* (2.26)	.031	.122* (1.97)	.027
Infantry	.277	-.446** (-11.08)	-.098	-.421** (-10.55)	-.092
Air mechanical, fixed-wing	.057	-.238** (-3.67)	-.052	-.208** (-3.21)	-.046
Air mechanical, helicopter	.031	-.301** (-3.58)	-.066	-.260** (-3.11)	-.057
Air, technical	.086	-.493** (-7.93)	-.108	-.462** (-7.49)	-.101
Air, other	.039	-.051 (-.67)	-.011	-.027 (-.351)	-.006
Other, technical	.097	-0.086 (-1.57)	-.019	-.082 (-1.50)	-.018
Administrative	.131	.432** (9.16)	.095	.448** (9.55)	.098
FY 1980	.094	-.706** (-7.49)	-.155	No	--
FY 1981	.080	-.268** (-2.90)	-.059	No	--

Table E-1. (Continued)

	Mean value	Specification 1		Specification 2	
		Coefficient	Derivative	Coefficient	Derivative
FY 1982	.081	-.299** (-3.43)	-.066	No	--
FY 1983	.084	.047 (.600)	.010	No	--
FY 1984	.090	.277** (3.67)	.061	No	--
FY 1985	.095	-.043 (-.56)	-.009	No	--
FY 1986	.106	.323** (4.37)	.071	No	--
FY 1987	.100	.226** (3.05)	.050	No	--
FY 1988	.105	-.425** (-5.61)	-.093	No	--
FY 1989	.088	-.226** (-2.94)	-.050	No	--
AFQT missing	.290	.272** (4.87)	.060	.169** (3.27)	.037
Constant	1.00	-2.244** (-13.32)	--	-5.548** (-13.45)	--
Chi-square		4,740.0		4,494.0	
Number of observations		26,840		26,840	

NOTES: (1) The number in parentheses beneath each coefficient is an asymptotic t-statistic.
 (2) ** Coefficient is statistically significant at the 1-percent level (two-tailed test).
 (3) * Coefficient is statistically significant at the 5-percent level (two-tailed test).

APPENDIX F

LOGIT REENLISTMENT EQUATIONS FOR INDIVIDUAL MOSs

APPENDIX F

LOGIT REENLISTMENT EQUATIONS FOR INDIVIDUAL MOSs

This appendix provides estimates of the derivatives from reenlistment equations estimated separately for each of the following PMOSs:

- 0231 Intelligence Specialist (table F-1)
- 0311 Rifleman (table F-2)
- 0431 Logistic/Embarkation Specialist (table F-3)
- 1371 Combat Engineer (table F-4)
- 2531 Field Radio Operator (table F-5)
- 3043 Supply Administration and Operation Clerk (table F-6)
- 3531 Motor Vehicle Operator (table F-7)
- 5811 Military Police (table F-8)

Table F-1. MOS 0231: Derivatives at the average reenlistment rate,
453 decisions (derived from logit equation estimates)

Variable	Specification					
	(1)	(2)	(3)	(4)	(5)	(6)
Corporal	.020 (.16)	-.007 (-.06)	.032 (.27)	.007 (.06)	.041 (.34)	.019 (.16)
Sgt/Staff Sgt	.088 (.71)	.070 (.56)	.107 (.90)	.089 (.76)	.126 (1.04)	.113 (.93)
AFQT12	-.300 (-2.51)	-.068 (-.93)	-.281 (-2.44)	-.076 (-1.05)	-.266 (-2.23)	-.078 (-1.07)
SRB_AFT12	.323 (2.51)	No	.285 (2.32)	No	.263 (2.02)	No
HSDG	.010 (.13)	.035 (.44)	.004 (.05)	.023 (.30)	.009 (.12)	.030 (.39)
Black	.233 (2.20)	.239 (2.27)	.229 (2.25)	.234 (2.30)	.228 (2.22)	.232 (2.26)
Hispanic	.307 (1.10)	.335 (1.18)	.348 (1.24)	.383 (1.36)	.359 (1.28)	.398 (1.40)
Married or dependents	.095 (1.73)	.087 (1.60)	.109 (2.05)	.100 (1.90)	.103 (1.92)	.094 (1.78)
Length of first contract	.035 (1.00)	.031 (.88)	.033 (.97)	.027 (.81)	.033 (.97)	.028 (.82)
Prior extension	.086 (1.04)	.093 (1.15)	.034 (.43)	.044 (.56)	.034 (.42)	.034 (.43)
SRB level	.028 (.85)	.072 (2.74)	.048 (2.29)	.082 (5.28)	No	No
SRB level 1	No	No	No	No	.179 (.95)	.301 (1.68)
SRB level 3	No	No	No	No	.218 (2.09)	.347 (4.06)
SRB level 4	No	No	No	No	.169 (1.80)	.304 (4.44)
SRB level 5	No	No	No	No	.330 (2.71)	.466 (4.55)

Table F-1. (Continued)

Variable	Specification					
	(1)	(2)	(3)	(4)	(5)	(6)
Missing AFQT	Yes	Yes	Yes	Yes	Yes	Yes
Fiscal year variables	Yes	Yes	No	No	No	No
Unemployment rate	No	No	5.80 (4.46)	5.82 (4.41)	5.796 (4.29)	5.540 (4.13)
Pay index	No	No	2.347 (3.46)	2.409 (3.45)	2.589 (3.48)	2.738 (3.56)
Constant	Yes	Yes	Yes	Yes	Yes	Yes
Chi-square ^a	112.8	106.3	98.3	92.7	101.5	97.3
Average reenlistment rate	.536	.536	.536	.536	.536	.536

NOTE: The 453 decisions represent all zone A reenlistments from FY 1980 through June 1990 for MOS 0231.

- a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

Table F-2. MOS 0311: Derivatives at the average reenlistment rate, 3,437 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.120 (6.78)	.126 (7.14)	.120 (6.80)	.127 (7.17)
Sgt/Staff Sgt	.217 (8.29)	.230 (8.95)	.215 (8.20)	.229 (8.90)
AFQT12	-.011 (-.54)	-.009 (-.42)	-.013 (-.66)	-.011 (-.55)
HSDG	-.010 (-.53)	-.013 (-.71)	-.011 (-.59)	-.013 (-.71)
Black	.151 (9.27)	.155 (9.52)	.152 (9.35)	.156 (9.58)
Hispanic	-.047 (-1.45)	-.047 (-1.44)	-.046 (-1.42)	-.045 (-1.39)
Married or dependents	.118 (8.42)	.118 (8.45)	.117 (8.35)	.118 (8.41)
Length of first contract	.028 (1.76)	.028 (1.85)	.033 (2.09)	.031 (2.00)
Prior extension	.106 (4.76)	.106 (4.78)	.102 (4.59)	.104 (4.72)
SRB level	.064 (6.56)	.063 (9.05)	No	No
SRB level one	No	No	.091 (3.30)	.048 (2.09)
SRB level two	No	No	.154 (7.17)	.142 (8.31)
SRB level three	No	No	.117 (3.07)	.161 (6.19)
Missing AFQT	Yes	Yes	Yes	Yes

Table F-2. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Fiscal year variables	Yes	No	Yes	No
Unemployment rates	No	.691 (2.01)	No	.748 (2.14)
Pay index	No	.108 (.57)	No	.087 (.45)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	455.8	428.6	465.6	432.0
Average reenlistment rate	.224	.224	.224	.224

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

Table F-3. MOS 0431: Derivatives at the average reenlistment rate, 930 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.048 (.88)	.010 (.20)	.045 (.82)	.017 (.32)
Sgt/Staff Sgt	.169 (2.50)	.105 (1.64)	.163 (2.40)	.115 (1.77)
AFQT12	.088 (1.83)	.074 (1.63)	.084 (1.73)	.072 (1.59)
HSDG	-.044 (-.90)	-.039 (-.82)	-.050 (-1.03)	-.040 (-.83)
Black	.183 (3.97)	.183 (4.09)	.183 (3.97)	.186 (4.15)
Hispanic	-.009 (-.12)	-.028 (-.39)	-.021 (-.28)	-.031 (-.42)
Married or dependents	.182 (4.73)	.172 (4.62)	.180 (4.64)	.172 (4.59)
Length of first contract	.033 (.87)	.044 (1.20)	.034 (.88)	.035 (.96)
Prior extension	.127 (2.36)	.137 (2.62)	.241 (2.48)	.138 (2.64)
SRB level	.151 (6.94)	.114 (7.17)	No	No
SRB level one	No	No	-.002 (-.02)	.023 (.29)
SRB level two	No	No	.272 (5.55)	.248 (6.34)
SRB level four	No	No	.891 (5.43)	.409 (4.79)
Missing AFQT	Yes	Yes	Yes	Yes
Fiscal year variables	Yes	No	Yes	No

Table F-3. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Unemployment rate	No	3.391 (4.01)	No	3.276 (3.82)
Pay index	No	1.341 (3.24)	No	1.430 (3.41)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	192.1	157.1	199.5	159.2
Average reenlistment rate	.442	.442	.442	.442

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

Table F-4. MOS 1371: Derivatives at the average reenlistment rate, 524 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.095 (1.82)	.099 (1.96)	.099 (1.89)	.104 (2.05)
Sgt/Staff Sgt	.203 (2.72)	.215 (2.93)	.207 (2.77)	.217 (2.95)
AFQT12	.032 (.46)	.034 (.50)	.029 (.40)	.034 (.49)
HSDG	-.012 (-.20)	-.011 (-.20)	-.011 (-.19)	-.010 (-.18)
Black	.264 (4.35)	.286 (4.84)	.257 (4.23)	.275 (4.60)
Hispanic	.177 (1.94)	.182 (2.06)	.169 (1.86)	.187 (2.09)
Married or dependents	.182 (3.89)	.169 (3.77)	.182 (3.89)	.167 (3.71)
Length of first contract	.238 (4.46)	.232 (4.50)	.241 (4.49)	.234 (4.51)
Prior extension	-.037 (-.50)	-.052 (-.72)	-.034 (-.46)	-.053 (-.73)
SRB level	.118 (3.29)	.083 (3.86)	No	No
SRB level one	No	No	.0004 (.00)	.175 (2.30)
SRB level two	No	No	.273 (2.92)	.256 (3.43)
SRB level three	No	No	.344 (3.14)	.257 (3.69)
Missing AFQT	Yes	Yes	Yes	Yes

Table F-4. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Fiscal year variables	Yes	No	Yes	No
Unemployment rates	No	-.369 (-.35)	No	.125 (.11)
Pay index	No	.855 (1.65)	No	.675 (1.27)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	125.5	113.3	126.7	116.1
Average reenlistment rate	.261	.261	.261	.261

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels. There are no women Marines in this MOS.

Table F-5. MOS 2531: Derivatives at the average reenlistment rate, 1,268 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.113 (3.50)	.111 (3.55)	.115 (3.55)	.110 (3.53)
Sgt/Staff Sgt	.222 (4.05)	.225 (4.20)	.223 (4.05)	.229 (4.24)
Male	.003 (.06)	.006 (.11)	.005 (.09)	.008 (.14)
AFQT12	-.064 (-1.44)	-.058 (-1.33)	-.062 (-1.40)	-.054 (-1.24)
HSDG	.005 (.13)	.005 (.13)	.015 (.38)	.012 (.32)
Black	.184 (5.83)	.182 (5.88)	.187 (5.91)	.183 (.96)
Hispanic	.019 (.32)	.013 (.21)	.017 (.28)	.010 (.17)
Married or dependents	.146 (5.18)	.129 (4.59)	.149 (5.26)	.134 (4.75)
Length of first contract	.019 (.61)	.004 (.12)	.017 (.55)	.003 (.10)
Prior extension	.079 (1.76)	.079 (1.82)	.081 (1.80)	.082 (1.87)
SRB level	.172 (6.73)	.142 (8.87)	No	No
SRB level one	No	No	.370 (3.90)	.299 (4.34)
SRB level two	No	No	.311 (3.90)	.271 (8.35)
Missing AFQT	Yes	Yes	Yes	Yes
Fiscal year variables	Yes	No	Yes	No

Table F-5. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Unemployment rate	No	.893 (1.44)	No	.594 (.90)
Pay index	No	.706 (2.27)	No	.711 (2.26)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	224.4	203.2	229.4	208.6
Average reenlistment rate	.256	.256	.256	.256

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

Table F-6. MOS 3043: Derivatives at the average reenlistment rate, 566 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.022 (.32)	.023 (.35)	.024 (.35)	.016 (.25)
Sgt/Staff Sgt	.294 (3.38)	.279 (3.35)	.293 (3.37)	.267 (3.20)
Male	-.175 (-2.46)	-.163 (-2.39)	-.177 (-2.50)	-.165 (-2.43)
AFQT12	-.014 (-.22)	.018 (.30)	-.013 (-.20)	.006 (.10)
HSDG	.060 (.83)	.042 (.60)	.061 (.84)	.045 (.66)
Black	.274 (4.60)	.265 (4.66)	.271 (4.56)	.271 (4.75)
Hispanic	.069 (.69)	.029 (.30)	.069 (.69)	.031 (.33)
Married or dependents	.173 (3.53)	.172 (3.65)	.170 (3.43)	.167 (3.51)
Length of first contract	.171 (3.18)	.136 (2.65)	.169 (3.14)	.145 (2.81)
Prior extension	.051 (.62)	.076 (.98)	.054 (.66)	.078 (.99)
SRB level	.147 (5.25)	.087 (4.41)	No	No
SRB level one	No	No	.141 (1.48)	.036 (.49)
SRB level two	No	No	.295 (3.70)	.111 (1.81)
SRB level three or four	No	No	.481 (4.69)	.312 (4.42)
Missing AFQT	Yes	Yes	Yes	Yes

Table F-6. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Fiscal year variables	Yes	No	Yes	No
Unemployment rate	No	.831 (.89)	No	1.083 (1.09)
Pay index	No	-.052 (-.10)	No	-.052 (-.10)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	129.8	100.8	127.2	101.4
Average reenlistment rate	.443	.443	.443	.443

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

Table F-7. MOS 3531: Derivatives at the average reenlistment rate, 1,140 decisions (derived from logit equation estimates)

Variable	Specification	
	(1)	(2)
Corporal	.123 (3.26)	.102 (3.01)
Sgt/Staff Sgt	.336 (5.05)	.304 (5.08)
Male	-.215 (-2.81)	-.207 (-3.05)
AFQT12	-.080 (-1.31)	-.085 (-1.54)
HSDG	-.057 (-1.24)	-.049 (-1.19)
Black	.307 (8.16)	.270 (7.99)
Hispanic	.168 (2.67)	.147 (2.54)
Married or dependents	.192 (5.96)	.175 (6.01)
Length of first contract	-.016 (-.42)	-.013 (-.39)
Prior extension	.143 (2.89)	.135 (3.05)
SRB level ^a	.158 (4.35)	.136 (7.98)
Missing AFQT	Yes	Yes
Fiscal year variables	Yes	No
Unemployment rate	No	1.054 (1.42)
Pay index	No	-.464 (-1.35)

Table F-7. (Continued)

Variable	Specification	
	(1)	(2)
Constant	Yes	Yes
Chi-square	272.6	249.7
Average reenlistment rate	.309	.309

a. MOS 3531 has only had a zero-level and a level-two SRB bonus in the 7910 through 9006 period. Thus, the SRB level variable assumes only one meaningful value, and the specifications with the individual levels cannot be estimated.

Table F-8. MOS 5811: Derivatives at the average reenlistment rate, 514 decisions (derived from logit equation estimates)

Variable	Specification			
	(1)	(2)	(3)	(4)
Corporal	.147 (1.90)	.136 (2.17)	.151 (1.94)	.139 (2.20)
Sgt/Staff Sgt	.128 (1.43)	.116 (1.57)	.130 (1.45)	.114 (1.55)
Male	-.102 (-.91)	-.069 (-.73)	-.109 (-.97)	-.068 (-.73)
AFQT12	-.117 (-1.67)	-.103 (-1.75)	-.123 (-1.74)	-.102 (-1.75)
HSDG	-.153 (-2.16)	-.142 (-2.41)	-.148 (-2.08)	-.136 (-2.32)
Black	.404 (5.51)	.335 (5.52)	.412 (5.56)	.336 (5.54)
Hispanic	.133 (1.30)	.116 (1.36)	.137 (1.34)	.123 (1.44)
Married or dependents	.114 (2.26)	.107 (2.51)	.114 (2.24)	.107 (2.52)
Length of first contract	-.066 (-.94)	-.093 (-1.56)	-.062 (-.88)	-.092 (-1.56)
Prior extension	.065 (.86)	.071 (1.13)	.074 (.97)	.078 (1.23)
SRB level	.259 (5.75)	.192 (8.46)	No	No
SRB level one	No	No	.444 (2.82)	.307 (2.79)
SRB level two	No	No	.543 (5.59)	.396 (7.38)
SRB level three	No	No	.674 (3.69)	.562 (6.92)
Missing AFQT	Yes	Yes	Yes	Yes

Table F-8. (Continued)

Variable	Specification			
	(1)	(2)	(3)	(4)
Fiscal year variables	Yes	No	Yes	No
Unemployment rate	No	.415 (.32)	No	.296 (.22)
Pay index	No	2.496 (4.42)	No	2.452 (4.32)
Constant	Yes	Yes	Yes	Yes
Chi-square ^a	168.7	160.3	170.7	161.6
Average reenlistment rate	.302	.302	.302	.302

a. The chi-square statistic is an overall statistic describing the fit of the equation. Technically, it is $(-2)[(\ln \text{likelihood of the logit with just a constant term}) - (\ln \text{likelihood of the full logit})]$. All chi-square values reported in this paper are statistically significant at very high levels.

APPENDIX G

ADDITIONAL INFORMATION ON IN-YEAR VERSUS EARLY REENLISTMENTS

Table G-1. Logit equation results for various reenlistment outcomes:
FY 1989 decisions

Variable	Reenlistment outcome ^a					
	Probability of reenlisting		If reenlisting, probability of reenlisting early		Probability of in-year reenlistment (exclude early reenlistments)	
	Coeff.	Der. ^b	Coeff.	Der.	Coeff.	Der.
SRB_LEV	.167** (12.38)	.033	.315** (12.13)	.061	.078** (5.07)	.014
AFQT12	-.071 (-1.60)	--	.298** (3.57)	.059	-.142** (-2.82)	-.025
HSDG	.016 (.25)	--	.215 (1.69)	--	-.029 (-.41)	--
Corporal	.518** (10.67)	.103	-.435** (-4.52)	-.085	.627** (11.31)	.109
Sgt./Staff Sgt.	1.240** (15.24)	.248	-.224 (-1.60)	--	1.273** (13.68)	.222
Five-year obligors	1.685 ** (4.79)	.336	1.926** (4.68)	.378	1.171* (2.51)	.204
Six-year obligors	.505** (4.38)	.101	1.498** (8.67)	.294	-.161 (-1.07)	--
Married or dependents	.733** (20.06)	.146	.044 (.62)	--	.703** (17.17)	.122
Male	.092 (1.09)	--	.133 (.82)	--	.080 (.87)	--
Black	.916** (19.88)	.183	-.310** (-3.57)	-.061	.978** (19.53)	.170
Hispanic	.400** (5.04)	.080	-.184 (-1.17)	--	.457** (5.25)	.080
Infantry	-.330** (-6.60)	-.066	.370** (3.70)	.073	-.434** (-7.64)	-.076
Air mechanical, fixed-wing	.084 (1.01)	--	-.442** (-2.86)	-.087	.174 (1.87)	--
Air mechanical, helicopter	-.252* (-2.29)	-.050	-.820** (-3.46)	-.161	-.092 (-.78)	--
Air, technical	-.137 (-1.83)	--	-.547** (-3.90)	-.107	-.035 (-.41)	--

Table G-1. (Continued)

Variable	Reenlistment outcome ^a					
	Probability of reenlisting		If reenlisting, probability of reenlisting early		Probability of in-year reenlistment (exclude early reenlistments)	
	Coeff.	Der. ^b	Coeff.	Der.	Coeff.	Der.
Other, air	-.015 (-.16)	--	-.122 (-.71)	--	.028 (.25)	--
Other, technical	-.174* (-2.41)	-.035	-.173 (-1.08)	--	-.149 (-1.90)	--
Administration	.591** (10.02)	.118	-.021 (-.19)	--	.622** (9.69)	.108
Constant	-2.247 (-19.10)	--	-1.559 (-6.73)	--	-2.411 (-18.52)	--
Number of observations	17,059		4,698		15,331	
Mean dependent variable	.275		.268		.224	

- NOTES: (1) The number in parentheses beneath each coefficient is an asymptotic t-statistic.
 (2) ** Coefficient is statistically significant at the 1-percent level.
 (3) * Coefficient is statistically significant at the 5-percent level.

- a. The populations are recommended and eligible Marines in zone A who made decisions in FY 1989 and had initial contracts of four, five, or six years. The small number of observations with missing AFQT scores were omitted. The population used to estimate the probability of early reenlistment in the middle equation includes only reenlistments. The population used to estimate the probability of in-year reenlistment excludes those who were reenlisting early.
 b. Der. = derivative. Derivatives, calculated at the mean of the data, are reported only for statistically significant coefficient estimates.